

MDRF
1.7.3

Cleanup Action Report

Winlock Wood Products Site Winlock, Washington

4-26-99

April 26, 1999

Prepared for

**Winlock Wood Products, Inc.
Winlock, Washington**

Prepared by



LANDAU ASSOCIATES, INC.

USEPA SF



1426398

TABLE OF CONTENTS

INTRODUCTION	1
1996 CLEANUP ACTION	4
Culvert Fill	7
Undesignated Stockpile	9
North Embankment Fill	10
Biological Treatment Cells No. 1 and No. 2	11
SITE RESTORATION	12
GROUNDWATER MONITORING	13
Water Level Measurements	13
Groundwater Quality Sampling	14
SUMMARY AND CONCLUSIONS	15
USE OF THIS REPORT	16
REFERENCES	17

LIST OF FIGURES

<u>Figure</u>	<u>Title</u>
1	Vicinity Map
2	Stockpile and Confirmation Sample Location; and Cleanup Action Areas Completed, Fall 1996
3	Culvert Fill Confirmation Sample Locations, Fall 1996
4	Location of Progress Samples and TPH-affected Material Undergoing Treatment
5	Site Map and Groundwater Surface Elevation Contour Map for December 20, 1996

APPENDIX A	
SOIL/GROUNDWATER SAMPLING LABORATORY DATA	A-1

INTRODUCTION AND BACKGROUND

This cleanup action report describes removal, treatment, and disposal operations conducted during fall 1996 at the Winlock Wood Products site in Winlock, Washington (see Figure 1). This work followed initial remedial efforts conducted in fall 1995. The U.S. Environmental Protection Agency (EPA) provided regulatory oversight during both the fall 1995 and fall 1996 cleanup efforts. The information contained herein, in conjunction with previous characterization studies and interim action reports, records the successful removal of hazardous and potentially hazardous wastes from the site.

The following documents contain background information, analytical chemistry data, and descriptions of activities performed prior to the 1996 cleanup work, and are incorporated by reference in this report:

- *Shakertown Cedar Panels Site, Phase I Environmental Site Assessment.* Landau Associates, Inc. (1994).
- *Final Trip Report, Winlock Dump Site Assessment.* Ecology and Environment, Inc. (1994)
- *Final Work Plan, Expanded Investigation, Embankment and Former Impoundments, Winlock Wood Products Site, Winlock Washington.* Landau Associates, Inc. (1995a).
- *Cleanup Action Plan, Winlock Wood Products, Inc. Site, Winlock, Washington.* Landau Associates, Inc. (1995b).
- *Cleanup Action Plan Addendum, Impoundments and Embankment Fill Areas, Winlock Wood Products, Inc. Site, Winlock, Washington.* Landau Associates, Inc. (1996a).
- *Quality Assurance/Quality Control Plan, Stabilization of Lead Contaminated Soil, Winlock Wood Products Site, Winlock, Washington.* Landau Associates, Inc. (1996b).
- *Interim Remedial Action and Data Report, Winlock Wood Products, Inc. Winlock, Washington.* Landau Associates, Inc. (1996c).

Remedial actions undertaken at the Winlock Wood Products site (also known as Shakertown Cedar Panels) in September and October 1995 consisted of removing and disposing of metals-contaminated material (at a hazardous waste landfill); removing and disposing of linseed oil resin with minor debris (at a solid waste landfill); and removing and stockpiling total petroleum hydrocarbon (TPH)-affected soil for onsite biological treatment, as described in the Cleanup Action Plan (CAP, 1995b) developed by Landau Associates for the project.

Excavations in the various designated cleanup areas in fall 1995 revealed that the volume of waste was larger than had been initially anticipated. Accordingly, cleanup activities were eventually suspended because

of deteriorating weather conditions, to prevent adverse impacts to fisheries habitat (Olequa Creek), and to re-evaluate cleanup options. At the time work was suspended, removals from two cleanup areas, the Culvert Fill (CF) and the North Embankment (NE) Fill had not been completed. Removals from the remaining five designated cleanup areas (North Impoundment, South Impoundment, South Waste Area, the 6/8A Fill, and the South Embankment Fill) were completed in 1995. Those areas were restored and required no further action.

In addition to the two cleanup areas remaining to be completed, five stockpiles of excavated material were left onsite over the 1995/96 winter shutdown. The materials in these stockpiles consisted of: 1) hazardous waste generated during the 1995 cleanup; 2) TPH-affected soil; 3) undesignated material excavated from the bank above the North Impoundment cleanup area; and 4) two piles of solidified glue blocks, drums, and large, mostly metal, debris. The stockpile locations and approximate areas requiring further remedial efforts at the end of field activities in 1995 are shown on Figure 2.

A scope of services for the second phase of the cleanup action work is described in our May 1996 proposal letter to Winlock Wood Products, Inc. Services under the current scope that have been accomplished since the interim remedial work completed in 1995 consist of:

- Completing a report on the interim remedial action effort
- Conducting a lead treatability study on samples of the hazardous material stockpile
- Preparing an addendum to the Cleanup Action Plan describing activities to be completed in 1996
- Overseeing the 1996 removal of wastes and affected soil from the cleanup action areas and monitoring the contractor's work for compliance with the CAP
- Collecting confirmation samples to verify removal of affected material to below cleanup action levels
- Conducting quantitative chemistry analyses on collected samples
- Measuring water levels in the three groundwater monitoring wells installed for this project
- Collecting a third set of water samples from the groundwater monitoring wells
- Compiling and interpreting the data
- Preparing this report.

Hazardous waste generated during the 1995 cleanup was sent directly to a permitted landfill for treatment/disposal. However, because of the high cost of disposing of this material at a hazardous waste landfill, the feasibility of treating the material on-site to render it nonhazardous was investigated by Landau

Associates. Our investigation determined that: 1) the primary reason the material classified as hazardous waste was that amount of lead that leached from some of the tested material exceeded the Toxicity Characteristic Leaching Procedure (TCLP) test criterium of 5 mg/L; 2) addition of an amendment, such as Portland cement, was successful in lowering the leachability of the lead to below the 5 mg/L criterium, and; 3) treated material could be disposed of at a facility meeting the minimal functional standards for municipal solid waste.

Landau Associates also evaluated material excavated from above the North Impoundment, (and stored in the Undesignated Stockpile), and the NE Fill as part of our reanalysis of treatment/disposal options. A review of analytical chemistry data from samples collected from materials in these areas, including samples from the Undesignated Stockpile, indicated that the average lead value was below the site cleanup level, after screening out data from samples collected in material that had already been removed from the site and managed as a hazardous waste.

Drums and large blocks of solidified glue encountered during removals in Fall 1995 were segregated from soil and other wastes and placed on plastic sheeting in two stockpiles along with other large, mostly metal debris, with the intent of disposing of them as solid waste. A quantitative chemical analysis of a composite sample of glue indicated it contained formaldehyde above the carcinogenicity criterion of 333 mg/kg. However, because of its solidified nature, the disposal facility stated that the glue could be disposed of at their facility if the Washington State Department of Ecology (Ecology) agreed that the material posed minimal risk. Disposal of the solidified glue was therefore postponed pending concurrence by Ecology on this determination.

While trying to resolve this matter, the carcinogenicity issue became mute, as the formaldehyde criterion was deleted from the amended Washington State Dangerous Waste regulations, (effective November 20, 1995). Procedures for determining whether a waste is a solid waste, dangerous waste, or an extremely hazardous waste are contained in these amended regulations, along with criteria for excluding certain dangerous wastes from the full management requirements. This special waste exclusion allows for disposal of certain materials in a landfill meeting the minimal functional standards for solid waste landfills.

In 1996, four more samples of the glue were collected and chemically analyzed to provide additional analytical data. Following the procedures in the state dangerous waste regulations, and using the highest concentration for each regulated constituent detected in the glue samples, an "equivalent concentration" for the solidified glue was determined. The evaluation showed that the equivalent concentration of detected constituents was below the threshold to designate the material as a dangerous waste and that the solidified glue could be handled and safely disposed of as a solid waste.

An addendum to the CAP (1996a) was prepared by Landau Associates describing the proposed changes to planned remediation efforts. Major tasks in the CAP and addendum identified to complete the cleanup action consisted of continuing to remove hazardous materials from the CF area and possibly from the

north Embankment Fill area; treating metals-contaminated material with a stabilizing agent to render it nonhazardous; hauling and disposing of treated material, solidified glue, and other debris; onsite treatment of TPH-affected soil; and site restoration. The primary revision to the original CAP was that metals-containing soil would be treated onsite by the cleanup contractor instead of by the disposal facility operator.

An additional task to the CAP was the temporary diversion of Olequa Creek in the vicinity of the Culvert Fill. The diversion was needed to protect water quality, because excavation of the steep bank above the creek was likely to cause some potentially contaminated soil to fall into the creek. The last significant revision to the CAP was that the NE fill and overlying Undesignated Stockpile were reclassified as solid waste and therefore, could be left onsite with only regrading of the stockpile required.

The CAP addendum was sent to the EPA for review and comment. The EPA was in general concurrence with the work items described in the addendum, except for the reclassification of the Undesignated Stockpile and NE fill as solid waste. Winlock Wood Products agreed to conduct additional testing of these materials during the cleanup work to determine if existing data was truly representative of overall conditions or if additional treatment/disposal was required.

1996 CLEANUP ACTION

CEcon Corporation (CEcon) of Tacoma, Washington was the remediation contractor for the initial removal work completed in 1995, and continued in this role for the work performed in 1996. Site preparatory activities consisted of clearing and removing surplus equipment and materials, constructing storage bins for treated material, setting up a screening operation, and diverting Olequa Creek.

The diversion of Olequa Creek was performed in substantial conformance with the method outlined in the CAP addendum. The basic tasks associated with this work consisted of: 1) constructing a temporary road down the embankment slope to provide access for equipment, 2) moving a tracked excavator across Olequa Creek, 3) excavating the diversion channel, 4) shifting the stream flow into the channel with a dike constructed of sandbags, and 5) transporting fish trapped within the isolation area downstream of the diversion. A second sandbag dike was initially constructed across the channel near the downstream end of the diversion to prevent backflow into the isolation area, but it was breached after observing that it was not needed and impeded the small flow of water leaking through the upstream dike. A silt fence was placed across the isolated portion of the channel to collect any buoyant debris that fell into the water.

One change to the diversion plan was the elimination of the gravel bench at the toe of the slope. The two main factors supporting this decision were that a substantial section of the creek bank below the area to be excavated had previously failed and slumped down, creating a moderate slope to catch soil and debris.

Secondly, material excavated from the diversion trench (which was slated for building the bench) contained more silt and fine sand than had been anticipated. Placing this material into the water would have created excessive turbidity. A third factor was that, after reviewing the site constraints, the excavator operator was confident that he could remove the overburden and contaminated material from the top of the bank with only minimal spillage. Building the bench with imported gravel from a nearby quarry remained a viable option if turbid conditions were created during the excavation work.

Following site preparation activities and diversion of Olequa Creek, the contractor then began excavating and treating potentially hazardous materials. The treatment was performed as described in the Quality Assurance/Quality Control Plan (1996b). Type I-II Portland cement, applied at a rate of 3 percent by dry weight, was selected as the stabilizing agent. The contractor had the cement delivered in standard 90-lb bags, which made it easy to determine the proper amount of cement to be added to each batch of excavated material.

To mix the cement with the waste material, CEcon elected to use a modified compost turner called a Turborator. The essential components of the Turborator consist of a hydraulically adjustable steel frame mounted on four wheels that supports a counter-rotating drum equipped with paddles. The mixing area of the Turborator is enclosed with thick rubber panels that contain the material as it is being mixed. The waste material is first shaped into a windrow with a maximum base width of about 12 ft and a height of about 6 ft. The windrow can be of any length, subject to site or other production constraints. At this site, the typical windrow length was about 180 ft. The counter-rotating drum lifts up the material, aerating and mixing it, and then deposits the blended material behind the machine as it moves down the windrow. Typically, two passes through each windrow were made to assure adequate mixing.

The approximate dry weight of each batch of waste material was determined by Landau Associates. The procedure consisted of measuring the length, average base width, and average height of the windrow to calculate the windrow volume and measuring the dry density of the material with a nuclear moisture-density gauge. Multiplying the volume by the unit dry density yields the mass of the windrow. Individual width and height measurements were taken at 40-50 ft intervals along the length of the windrow (typically four measurements) and averaged upward to the nearest 0.5 ft. Two moisture-density readings, one on each side of the windrow, were taken with the nuclear gauge at the same locations as the width and height measurements for a total of eight measurements. The windrow surface was prepared for each reading by scraping off the loose surficial soil and using the weight of the gauge to perform some light compaction. To assure an adequate amount of cement and to compensate for heterogeneities in the windrow, the unit density of the waste used to calculate the total dry mass in the windrow was based on the calculated mean unit density plus two standard deviations (calculated from the eight individual measurements):

The waste material had sufficient moisture so that fugitive dust emissions from the waste were not a concern. However, clouds of dry cement dust were released as each bag was encountered and shredded by the paddles on the Turborator. Fugitive cement dust was controlled and knocked down using water spray from a 1-inch diameter fire hose operated by a laborer following behind the Turborator. When windy conditions developed in late afternoons during a warm, dry period, mixing of the windrows was postponed until early morning to take advantage of calmer conditions. Changing the positions of the cement bags within the windrow (typically placed in the center) was tried but had no apparent effect on the amount of dust released.

Although the Turborator worked very well for most of the material, some of it could not be mixed using the Turborator. One situation was due to the needed clearance between the pavement surface and the paddles on the Turborator drum which resulted in a 4-6 inch thick layer of soil at the bottom of each windrow that could not be thoroughly mixed. To address this problem, the 4-6 inch layer was mixed into and incorporated into the treated material when the windrow was picked up and transported to the storage bins, and again when it was loaded into the hauling containers. To document that the overall treatment was still effective, and to account for this reduced mixing effort, a representative portion of this 4-6 inch layer was collected and incorporated into the confirmation sample for each windrow. The upper bound of the volume in this layer was calculated to be 20 percent of the total windrow volume, therefore one in every five spoonfuls for the composite sample was obtained from this layer.

The other material that could not be mixed with the Turborator consisted of cobbles and large pieces of debris. Past experience with the Turborator showed that large objects left in the material would cause wear and tear on the paddles, usually resulting in significant down time for maintenance and repairs, and presenting an increased safety hazard as objects could be ejected from the mixing area when struck with the paddles. To address this problem, CEcon set up a vibratory screen to segregate all items larger than about 4 inches in diameter from the waste material to be mixed with the Turborator. Oversize material was moved to a temporary stockpile area located on the east side of the turnaround loop road (Figure 2).

The waste material also contained large clods of overly wet and partially-cemented soil that didn't always break up and fall through the screen, even after multiple attempts. This material was also handled as oversize. However, since this material may have been contaminated, a decision was made to treat the oversize before disposal. To treat it, the volumes of oversize piles were measured and the unit weight of soil and soil-like material was estimated based on the cumulative average unit weight of the windrows from which the material was obtained. To adjust for the high amounts of debris and cobbles, a sample of each oversize pile was segregated into soil-like material and nonsoil-like oversize objects (cobbles, solidified glue, woody pieces, larger pieces of scrap metal, etc.) and the two subsamples were weighed. The results of this test indicated that soil and soil-like material made up about 36 percent of the piles and the remaining 64 percent was relatively

clean oversize pieces. The amount of cement added was adjusted based on this ratio. The excavator was used to mix the cement into the pile using a scoop and dump technique. Because the effectiveness of this method can vary, three passes through each pile were made to adequately distribute and mix the cement. Adequacy of the mixing was verified with visual observations and confirmation testing.

One confirmation sample was collected from each treated windrow of waste material and analyzed for total and TCLP lead. Results are summarized in Table A-1, Appendix A. Total lead values ranged from 380 to 8400 mg/kg and TCLP lead values ranged from not detected at the analytical detection limit of 0.05 mg/L to 3.7 mg/L. No correlation between total lead and TCLP lead values was discernible.

Treated windrows were placed in storage bins constructed of concrete "Ecology" blocks pending results of the confirmation testing. Once the analytical results had been returned, the treated soil was loaded into 20 or 40 cy³ trash containers and trucked to Centralia where the containers were weighed and then transferred onto rail cars. The containers were then shipped to Regional Disposal's municipal solid waste landfill located in Roosevelt, Washington for disposal. Solidified glue, other debris, and oversize material were handled similarly. Two hundred eighty-seven loads of waste material with a net weight of 8,005.51 tons, were removed from the site in 1996. A total of 1,469.81 tons of solid and hazardous waste were removed from the site during the 1995 effort.

Figures 2, 3, and 4 in this report should be referred to for the locations from which samples discussed in the following sections were collected. A brief data validation section, along with summaries of the laboratory data, and copies of the analytical reports provided by the laboratories are included in Appendix A.

CULVERT FILL

Excavations in the CF area began once Olequa Creek had been diverted and treatment of the pre-existing hazardous waste stockpile was under way. Generally, the excavator worked from south to north, first excavating the clean overburden down to just above the suspect layer, then removing the lead-containing layer, and finally a third trip through to remove any TPH-affected soil. Material was excavated in swaths about 20 to 40 ft wide, beginning along the creek and working eastward until the suspect material had been removed. Initially, excavated overburden was placed over the bank due to limited room for storing this material. Once sufficient room was available within the CF area, and confirmation testing showed that the lead-containing wastes and TPH-affected soil had been removed, the excavated overburden was stockpiled directly in the southwest quadrant of the CF area for later reuse as backfill.

The CF was a heterogeneous fill consisting of ash, soil, wood and bark chips, metal and other debris. The hazardous material in the CF had a characteristic light purplish-red coloration with isolated chunks of paint pigment. In contrast to most of the other cleanup areas at the site, the lead-containing layer varied

significantly in consistency, thickness, and depth. As the excavation progressed, it became apparent that at the time the material had originally been dumped, a bulldozer or similar equipment had been used to move the material around. These actions had the effect of mixing a large amount of soil into the waste, increasing the volume to be removed and treated.

Because of these variations in the material, and because total lead values in the treated materials were lower than expected, excavations were temporarily halted and samples of suspect material (samples CF-W4 through CF-W7) were obtained from the then-current east wall of the excavation to determine the in situ lead concentrations. Results showed lead levels substantially above the cleanup level and excavation resumed. After the next swath of material had been removed, it appeared that the amount of paint waste in the suspect layer had diminished significantly and another wall sample was collected (CF-W8). This sample showed lead at 870 mg/kg, which was below the cleanup level. However, after another bucket width of material had been removed, four additional samples collected in the same general area all showed lead again above the cleanup level and the excavation continued eastward. The final boundary of the CF excavation is shown on Figures 2 and 3.

Confirmation sampling for total lead followed removal of the suspect layer in each swath. Sampling frequency was higher than outlined in the CAP due to the high variability of the suspect layer. Also, at some locations, two sampling events were needed because the first event occurred when the EPA could not be present but data were needed to continue with the excavation work. However, no completed lead removal areas were covered up until the EPA had an opportunity to inspect the area and collect splits of confirmation samples.

Confirmation sample data are presented in Appendix A. Total lead values of samples collected from the final excavation limits ranged from 12 to 630 mg/kg, except for sample CF-C36 which had a total lead value of 3,200 mg/kg. This discrete sample was collected from a 6-8 inch layer of waste material that was still present in the sidewall of the excavation. The EPA determined that this material posed little risk to human health and the environment and allowed this material to remain in place after considering: 1) the distance to the wetland area; 2) the lack of significant groundwater flow; 3) the effective cap provided by the asphalt pavement; and 4) the dangers and difficulties inherent in supporting (or partially demolishing) the adjacent storage building. However, as a condition for allowing this material to remain, EPA may request that a deed restriction be added to the title for this portion of the property to serve as notice that any future earthwork in the immediate vicinity could encounter potentially hazardous material.

Petroleum hydrocarbon-like odors and sheens were observed in the soil below the lead-containing waste layers in some locations within the CF. TPH-affected soil was characterized by a slight to moderate odor and a dark gray to black color. The visual and olfactory signs indicated that the amount of TPH in the soil

varied substantially across the CF area. TPH-affected soil underlying the lead-containing layer was removed and transported to a stockpile for placement into a new biological treatment cell (Cell No. 2, Figure 4). The soil underlying the affected zone was a light gray becoming light brown to orange-brown with depth.

Composite samples analyzed for TPH in the gasoline and diesel hydrocarbon ranges were collected from the bottom of the CF excavation after the affected soil had been removed. Laboratory results show that diesel range petroleum hydrocarbons varied from not detected at the analytical detection limit (15-20 mg/kg) to 90 mg/kg. Gasoline range petroleum hydrocarbons in these confirmation samples varied from 18 to 250 mg/kg. A gasoline-range "hot spot" was delineated from within the sample collection area of sample CF-C27 (laboratory value of 250 mg/kg) using visual observations and scans with the PID. The hot spot was overexcavated until PID readings and visual observations indicated that the affected soil had been removed. Due to the relatively low initial sample result an additional confirmation sample was not collected and analyzed.

UNDESIGNATED STOCKPILE

Four composite samples (UW-4, UW-5, UW-6, and UW-7) were collected and analyzed to determine if the material in the Undesignated Stockpile should be classified as a solid waste material. Composite sampling was chosen as being more representative of overall conditions since the Undesignated Stockpile originated from various sources. The excavator was used to excavate four test pits through the stockpile down to the previous surface grade (top of the NE fill). The test pits were located to divide the stockpile into four roughly equal portions, based on visual estimates. Material excavated from the test pits was placed into separate stockpiles and then mixed using the excavator bucket. At each pile, smaller portions were split out with a hand shovel, and the material was further homogenized with the shovel. From the remixed material, a composite sample was created by collecting spoonfuls of material into an aluminum pie pan, remixing the material a third time before placing the sample into the sample jar.

The four samples were analyzed for lead, and sample UW-4, which had hydrocarbon-like odors, was also analyzed for TPH in the gasoline and diesel ranges. Results of the analyses showed that the four samples contained lead ranging from 150 to 640 mg/kg, which is below the 1,000 mg/kg cleanup standard established for the site. Sample UW-4 showed TPH concentrations in the diesel range at 65 mg/kg, and in the gasoline range at 460 mg/kg.

The Undesignated Stockpile was regraded following receipt of the analytical test data, and acknowledgment from EPA, to gain access to the NE fill. A substantial portion of the material was used as fill on the slope just south of the stockpile location (the slope above the former North Waste Pond) to cover over the exposed bedrock and lessen the steepness of the slope. The rest of the Undesignated Stockpile was

leveled and contoured to blend in with the surrounding topography. Material with petroleum hydrocarbon-like odors was segregated and stockpiled for mixing into Biological Treatment Cell No. 1 material at a later date.

NORTH EMBANKMENT FILL

Five composite samples (NE-TP2, NE-TP3, NE-TP4, NE-TP5, and NE-TP6) were collected and analyzed to determine if the material in the NE fill should be classified as a solid waste. Composite sampling rather than discrete sampling was chosen as being more representative of overall conditions, since a significant layer of lead-containing soil or waste with distinguishing characteristics (that could be segregated from surrounding soil during removal) had not been previously identified. The EPA generally agreed with this approach, but requested a discrete sample be collected from any suspicious layer that appeared to present across a significant section of the NE fill area.

The excavator was used to excavate five test pits through the North Embankment Fill down to near the native bedrock surface. Test pits were located to divide the fill area into five roughly equal portions, based on visual estimates. The composite samples were collected from the NE fill using the same procedures described above for the Undesignated Stockpile. A discrete sample (NE-TP6D1) was collected from a bright orange-red layer of ashy soil present at varying depths, and in varying thicknesses, in the southern portion of the NE fill area.

The six samples were analyzed to quantify the amount of total lead. The five composite samples contained lead ranging from 340 to 830 mg/kg. The amount of lead in the one discrete sample was 720 mg/kg. These values were below the 1,000 mg/kg site cleanup standard and demonstrated that the NE fill could be left onsite. The analytical results were communicated to the EPA for their review, and following their concurrence, the test pits were backfilled and the NE fill area was regraded to allow for soil in Biological Treatment Cell No. 1 to be spread out to a uniform thickness.

BIOLOGICAL TREATMENT CELLS NO. 1 AND NO. 2

The TPH-affected material generated during the removal efforts in 1995 had been stored in a covered stockpile on the upland terrace over the winter shutdown. The 1995 stockpile was located at the proposed site of Biological Treatment Cell No. 1 (as shown on Figure 2). Once the disposition of the Undesignated Stockpile and NE fill area was known, and following regrading in that area, space was available to spread the TPH-affected material out in a thin layer. This was needed to aerate and remix the material which would enhance the biological treatment and to help dry it out. The front-end loader and excavator were used to excavate and spread the material. Undesignated Stockpile material with hydrocarbon-like odors was mixed in with Treatment Cell No. 1 material at this time.

During this work it was noted that the Treatment Cell No. 1 material had only slight hydrocarbon-like odors, and no sheens or stains were visible. Air monitoring data with the photoionization detector (PID) also indicated relatively low concentrations of volatile organic compounds. Two composite samples, LF-C1 and LF-C2, from the north and south halves of Treatment Cell No. 1, respectively, were collected and analyzed for TPH in the gasoline and diesel ranges. Gasoline range hydrocarbons were detected at 60 mg/kg in LF-C1 and 35 mg/kg in LF-C2. Diesel range hydrocarbons were not detected in LF-C1 at the analytical detection limit of 22 mg/kg and at a concentration of 53 mg/kg in LF-C2. The results of these analyses showed that passive biodegradation was successful in reducing the TPH concentrations to below the MTCA cleanup levels of 100 mg/kg for gasoline and 200 mg/kg for diesel, and that no further treatment was needed. An attempt was made to do some fine grading and recontouring of this material to improve its appearance but the material was too wet to properly handle. The site owner accepted this area in its then-current condition, with the intent of regrading it in the future when the soil drained.

Additional TPH-affected soil encountered in the CF area during the removal work accomplished in 1996 was removed and transported to a temporary stockpile until other cleanup efforts had been completed and sufficient space was available to spread out the material for treatment. This material was then placed within the turnaround loop in an area formerly occupied by the hazardous waste stockpile generated during the 1995 removal work. The area where this material was spread is identified as Biological Treatment Cell No. 2 on Figure 4. Once other efforts were substantially completed, the new stockpile of TPH-affected material was spread out in a layer about 2-3 ft thick for passive biological treatment.

Two composite samples (LF-C3 and LF-C4) were collected from the north and south halves of the material in Biological Treatment Cell No. 2 in October 1996 to establish baseline conditions. The samples were analyzed for TPH in the gasoline and diesel ranges. Results showed diesel-range hydrocarbon concentrations at 22 and 26 mg/kg and gasoline-range hydrocarbons at 940 and 950 mg/kg. Two additional samples (LF-C5 and LF-C6) were collected and analyzed for gasoline-range hydrocarbons during the December 1996 groundwater sampling event. Gasoline-range hydrocarbons were detected at 1480 and 1640 mg/kg in these two samples. Since concentration of gasoline range compounds were still above MTCA levels, the treatment cell material will be checked in conjunction with future groundwater sampling events.

SITE RESTORATION

Site restoration was performed essentially as described in the CAP. Disturbed areas were graded and contoured to reduce potential erosion and to return the areas to a more natural condition. The two culverts encountered in the CF area were extended with plastic pipe sections so that their discharge points were beyond

the toe of the new fill slope. The lowland portion of the CF was graded to direct surface water runoff toward the discharge point of the culverts and away from Olequa Creek.

The two culverts from the CF area currently discharge into a small pond, and the outflow from the pond runs northward into the former South Impoundment area, as shown on Figures 2 through 5. The former South Impoundment functions as a sedimentation basin for runoff from the CF and most of the embankment slope. In addition to sediment removal, other reasons for directing culvert flow into the former South Impoundment area, rather than straight into Olequa Creek, are to 1) provide more water for the wetland area, thereby enhancing its quality, and 2) provide an opportunity to capture and contain any accidental release or spill which might enter the plant's stormwater system. An overflow channel was constructed in 1995 by lowering a section of the former South Impoundment perimeter berm near its northwest corner. An overflow channel at this point creates the longest discharge route to Olequa Creek and provides the largest area for energy dissipation, filtration, and sediment removal.

Overburden removed from the CF, along with some of the embankment material north of the CF, was excavated and moved back into the CF area to fill in as much of the excavated upland area as possible. Fill material was moved using a bulldozer, excavator, front-end loaders, and dump trucks. The material was then "drifted" into place and compacted with the bulldozer. A WSDOT-approved erosion control grass seed mix was applied during the last week in October 1996 using hydro seeding techniques. A wetlands mix was not used since virtually all of the activities occurred outside delineated wetland areas and mostly on the upland terrace.

Olequa Creek was restored as best as practical with the equipment and materials on hand. The first step was to remove overburden soil from the channel that had run down the bank into the creek. This work was performed in conjunction with regrading of the CF area, after all other earthmoving activities immediately adjacent to the creek had been completed. The excavator was then moved across Olequa Creek and the two diversion dikes were removed, allowing water to flow in the natural channel. The diversion channel was then backfilled and the area regraded with the excavator. A row of sand bags was left across the upstream face of the backfilled area to reduce erosion potential. Finally, grass seed was spread by hand over the disturbed areas on the west side of Olequa Creek.

Some of the bank above the former North Impoundment was filled and regraded with material from the Undesignated Stockpile to reduce the steepness of the slope, provide a soil layer over exposed bedrock, and to cover exposed ashy soil. The bank was hydroseeded with the Erosion Control Mix.

GROUNDWATER MONITORING

Three groundwater monitoring wells were installed in May 1995 outside the impoundment areas to establish groundwater flow direction and to determine if groundwater quality had been impacted beyond the limits of the impoundments. Their locations are shown on Figures 2 and 4. Three staff gauges were also installed in Olequa Creek in May 1995 to relate water levels in the creek to groundwater levels. The staff gauges were damaged over the 1995-96 winter and have not been repaired or replaced. The latest round of groundwater level measurements and sample collections were performed on December 20, 1996, with results summarized below. Descriptions of groundwater testing and sampling procedures may be found in the Work Plan for the Expanded Investigation and in Appendix A of the Interim Remedial Action and Data Report.

WATER LEVEL MEASUREMENTS

Groundwater depths in the three monitoring wells were measured on December 20, 1996. The water level measurements were converted to elevations based on the vertical control survey accomplished for this project. The elevations are based on a temporary bench mark which was assigned an arbitrary elevation of 100.00 ft.

Groundwater surface elevation contours for groundwater elevations measured on December 20, 1996 are shown on Figure 5. The maximum observed difference in groundwater elevation across the site for this date was 2.67 ft between monitoring wells MW-1 and MW-3, which are approximately 410 ft apart. As can be seen from the figure, the inferred direction of groundwater migration in the uppermost water-bearing zone is to the southwest and south, toward Olequa Creek. This groundwater migration direction is consistent with results obtained in May, June, and September 1995.

GROUNDWATER QUALITY SAMPLING

Two sets of groundwater samples were collected in May and September 1995 as part of the site characterization phase of the project. The scheduling of the sampling events was based on obtaining groundwater samples when the groundwater levels were anticipated to be high (May) and low (September). Data from these two sampling efforts have been previously submitted, but are included in this report for completeness. Results from the two 1995 events showed some inconsistencies in the concentrations of some constituents. Consequently, additional groundwater quality sampling and testing was performed in 1996 and 1997. Groundwater quality data for all events to date are presented in Table A-2 in Appendix A; laboratory reports are also included in Appendix A.

The third set of water quality samples were collected on December 20, 1996, about two months following completion of the final remedial action work. Monitoring wells were purged and sampled after obtaining water level measurements. Samples were collected using a peristaltic pump and dedicated tubing discharging directly into bottles prepared and supplied by the analytical chemistry laboratory. Samples collected for total metals analyses were filtered in the field to remove suspended solids. The samples were analyzed for priority pollutant metals and diesel range petroleum hydrocarbons. All compounds analyzed for were not detected at the laboratory detection limits except for chromium, copper, lead, and zinc, at 11.5, 32.0, 10.5, and 26.5 µg/l, respectively in sample MW-2, and zinc at 32.6 µg/l in sample MW-3. Arsenic, which had been detected in all three samples collected in September 1996, and TPH, which had been detected in sample MW-3 from the same sampling event, were not detected at the analytical detection limits in the December 1996 samples.

The latest set of groundwater quality samples were collected on August 19, 1997. Sampling and testing protocols were the same as for the December 1996 event. At well MW-1 all compounds were undetected at the stated detection limits. At wells MW-2 and MW-3 all compounds were undetected except for arsenic, lead and zinc at 5.0, 7.44 and 32.0 mg/l, respectively, in sample MW-2; and lead and zinc at 3.83 and 36.2, respectively, in sample MW-3.

With the exception of lead at MW-2, all compounds are either at or below established maximum contaminant levels (MCL's). The lead concentration at well MW-2 in August 1997 was 7.44 mg/l, which is just above the 5.0 mg/l MCL (and the State's groundwater cleanup level).

SUMMARY AND CONCLUSIONS

Further remedial action efforts were undertaken in August through October 1996 for the purpose of removing, stabilizing, and disposing of contaminated material at a solid waste landfill, and removing and onsite treatment of TPH-affected soil. Based on observations and results of quantitative chemistry analyses of confirmation samples, remedial work accomplished in the fall of 1996 was successful in removing potentially hazardous materials and affected soil from the CF clean up area. Analytical chemistry data collected from the Undesignated Stockpile and the NE fill areas showed that the concentrations of lead in these materials were below the cleanup goal established for the site.

The one exception to the above is in the vicinity of sample CF-C36 (near the storage building). At this location it appears that a thin layer of lead-containing waste may extend beneath the building. The EPA has indicated it may request institutional controls (e.g. deed notification) to address this issue.

Analytical testing and visual and olfactory signs indicated that passive biodegradation and ventilation were effective in reducing the amount of TPH to below state regulatory limits established by Ecology for Biological Treatment Cell No. 1. TPH-affected material unearthed during the CF removals is currently undergoing similar treatment in Biological Treatment Cell No. 2, established inside the loop road as shown on Figure 5. The material in Cell No. 2 will be checked at the same time future groundwater samples are collected, and if observations warrant, samples will be collected and analyzed for TPH to determine if levels have dropped below regulatory limits. If no visual, odor or PID measurements indicate the presence of TPH (gasoline), the material will be considered "clean", with possible regrading as the only future activity associated with this stockpile.

Our assessment of groundwater quality regarding total metals findings (particularly lead) remains ongoing. Although the groundwater quality data collected to date does not support an assumption that the impoundment and embankment wastes have adversely impacted groundwater quality, neither can the variations in analyzed constituents be readily attributed to natural, background conditions. Accordingly, post-cleanup sampling and testing of groundwater is recommended to monitor the levels of detected metals. We recommend annual collection of groundwater samples, with analyses limited to arsenic and lead. Sampling results should be forwarded to the EPA following completion of analysis and data validation. The data will be used to determine if further action or investigation is warranted.

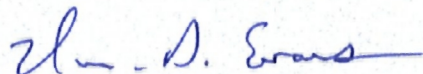
USE OF THIS REPORT

This report was prepared for the exclusive use of Winlock Wood Products Inc. and their agents for specific application to the Winlock Wood Products site in Winlock, Washington. Our services have been conducted in accordance with generally accepted practices of the environmental engineering profession in existence in the project area at the time of this report. The statements and conclusions contained in this report

are based on the observations, explorations, and sampling completed for this project by Landau Associates.
No other warranty, express or implied, is made as to the information included in this report.

LANDAU ASSOCIATES, INC.

By:

A handwritten signature in blue ink, appearing to read "W. D. Evans", with a long horizontal flourish extending to the right.

William D. Evans, CPG
Associate

WDE/jas

REFERENCES

Ecology and Environment, Inc. 1994. *Final Trip Report, Winlock Dump Site Assessment*. Report prepared for E.P.A. Region X, Seattle, Washington. December 2.

Landau Associates, Inc. (1996a). *Cleanup Action Plan Addendum, Impoundments and Embankment Fill Areas, Winlock Wood Products, Inc. Site, Winlock, Washington*. Prepared for Winlock Wood Products, Inc., Winlock Washington. July 23.

Landau Associates, Inc. (1996b). *Quality Assurance/Quality Control Plan, Stabilization of Lead Contaminated Soil, Winlock Wood Products Site, Winlock, Washington*. Prepared for Winlock Wood Products, Inc., Winlock, Washington. August 22.

Landau Associates, Inc. (1996c). *Interim Remedial Action and Data Report, Winlock Wood Products, Inc. Winlock, Washington*. Prepared for Winlock Wood Products, Inc., Winlock Washington. December 27.

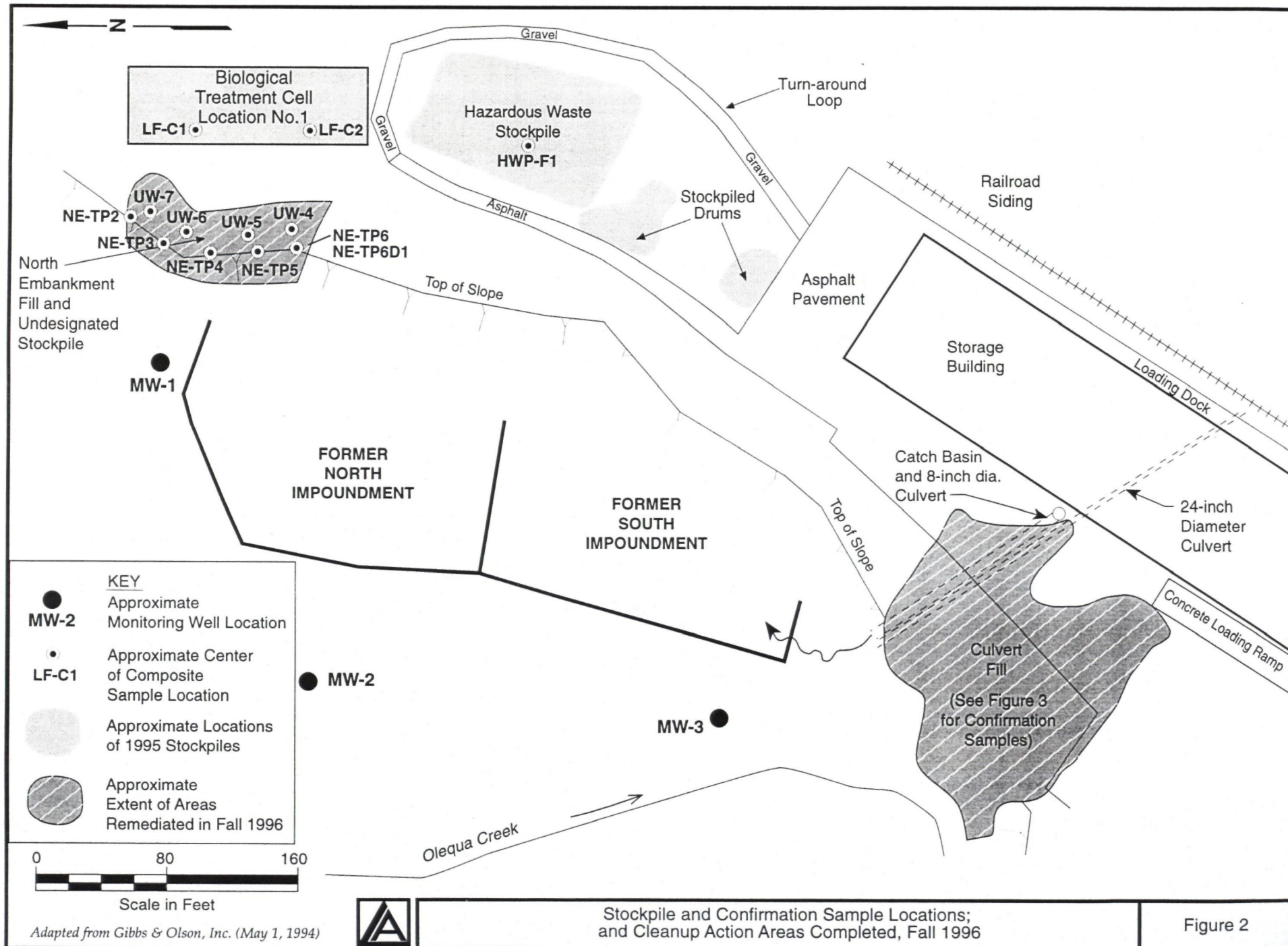
Landau Associates, Inc. 1995a. *Final Work Plan, Expanded Investigation, Embankment and Former Impoundments, Winlock Wood Products Site, Winlock Washington*. Prepared for Winlock Wood Products, Inc., Winlock Washington. April 20.

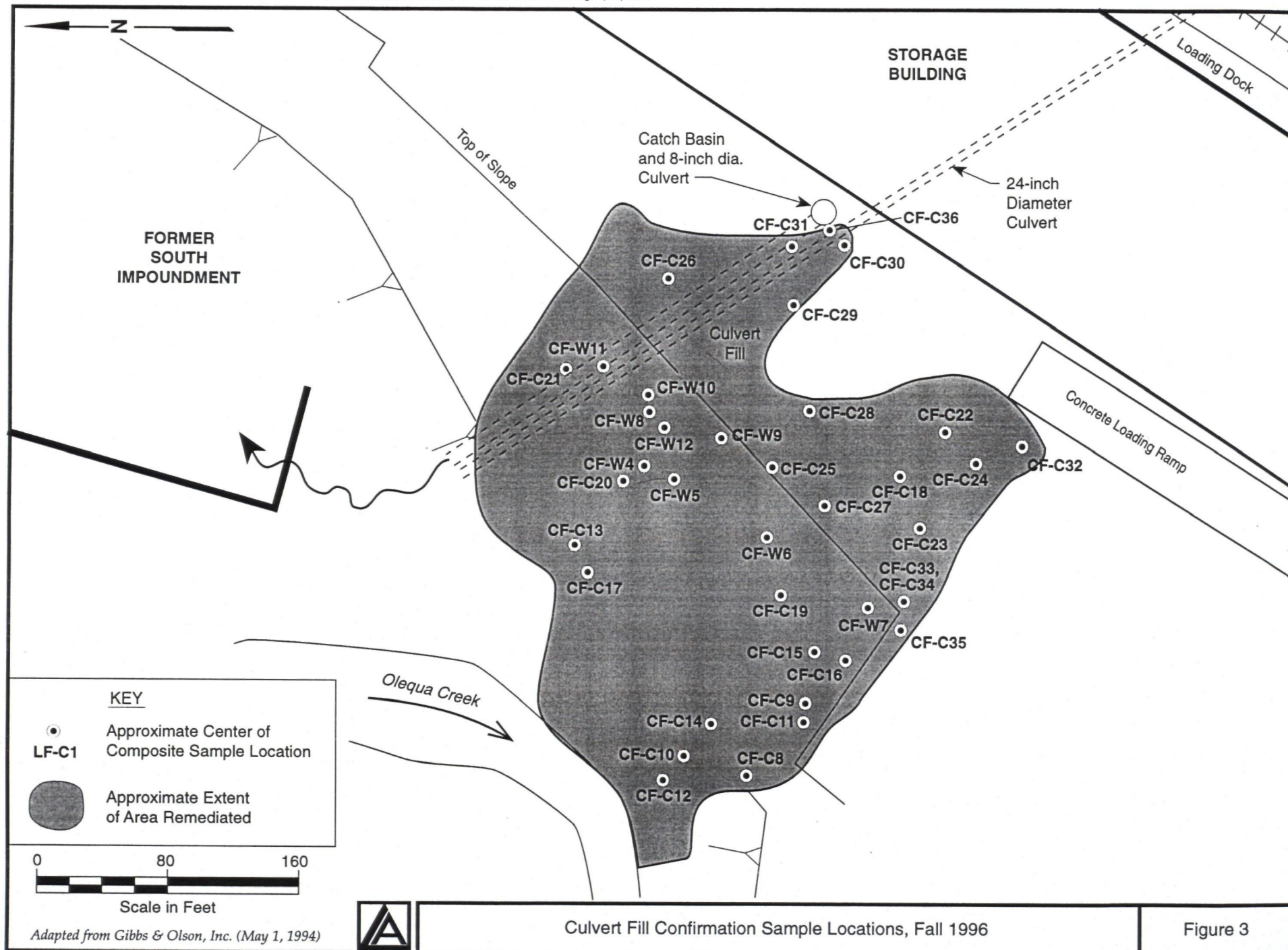
Landau Associates, Inc. 1995b. *Cleanup Action Plan, Winlock Wood Products, Inc. Site, Winlock, Washington*. Prepared for Winlock Wood Products, Inc., Winlock Washington. September 1.

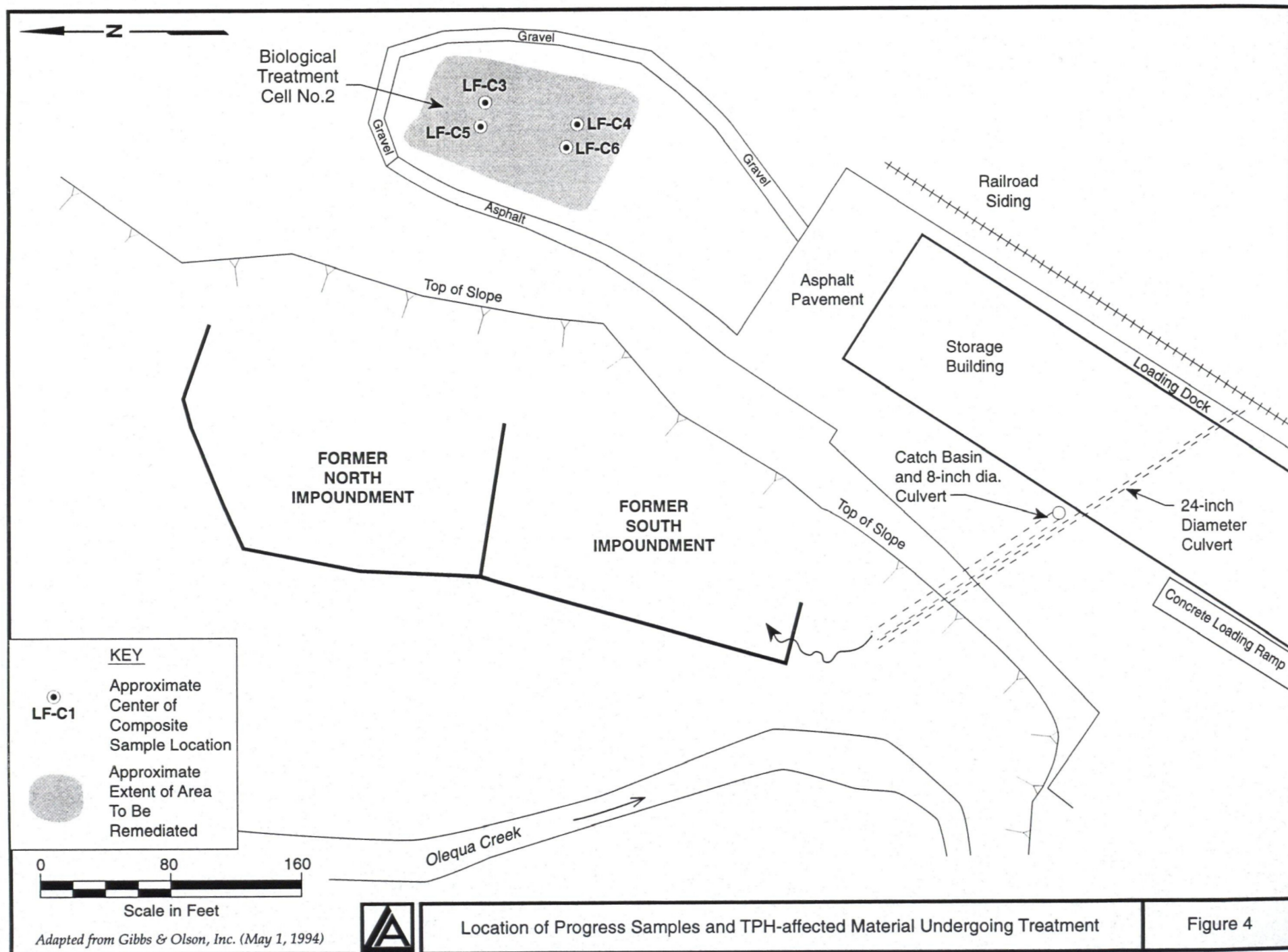
Landau Associates, Inc. 1994. *Shakertown Cedar Panels Site, Phase I Environmental Site Assessment*. Report prepared for Vanguard Properties, Inc., Woodinville, Washington. September 1.

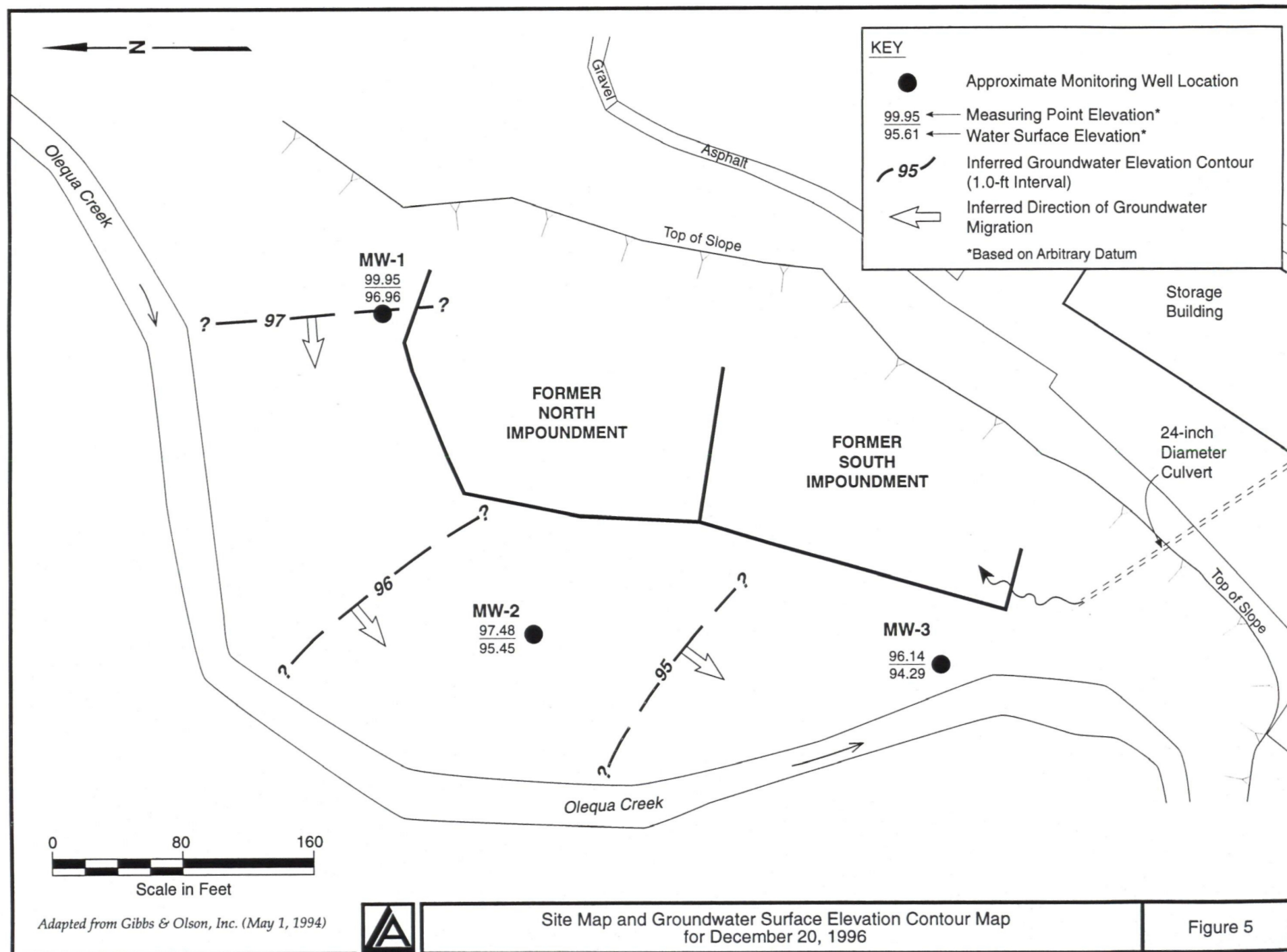


Figure 1









Laboratory Reports, Data Validation and Data Summary Tables

APPENDIX A

SOIL/GROUNDWATER SAMPLING LABORATORY DATA

Laboratory data for 83 soil and 3 groundwater samples collected at the Winlock Wood Products site during September, October, and December 1996 are presented in this appendix. Groundwater data from 1995 is also included. The data are summarized in Tables A-1 (soil/waste material) and A-2 (groundwater), and contained within the laboratory reports. A partial data quality evaluation was performed for analyses of total and TCLP lead (EPA methods 1311 and 7420, respectively) and hydrocarbon compounds [Ecology methods WTPH-G and WTPH-D (extended), and WTPH-HCID]; the results of the data quality evaluation are presented herein. Analyses were performed by National Environmental Testing (NET) located in Portland, Oregon, and by North Creek Analytical, Inc., (NCA), located in Bothell, Washington. This data quality evaluation covers NET data packages 96.02664, 96.02702, 96.02728, 96.02747, 96.02763, 96.02782, 96.02798, 96.02818, 96.02819, 96.02834, 96.02856, 96.02898, 96.02923, 96.02940, 96.02952, 96.02970, 96.02982, 96.03011, 96.03017, 96.03046, 96.03067, 96.03084, 96.03102, 96.03115, 96.03122, 96.03139, 96.03157, 96.03180, 96.03200, 96.03220, 96.03243, 96.03266, and 96.03365; and NCA data packages B505144, B509465, B612451 and B708321.

The data quality evaluation was performed in accordance with Appendix L of the Washington State Department of Ecology's *Guidance for Remediation of Release From Underground Storage Tanks* (Ecology 1997) and applicable portions of the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (EPA 1994a) and the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (EPA 1994b).

The evaluation considered the following elements:

- Chain-of-custody records
- Holding times
- Blank results (laboratory method and field)
- Surrogate recoveries
- Laboratory matrix spikes and matrix spike duplicates (including laboratory control samples)
- Duplicate analyses (field and laboratory)
- Conclusions and completeness.

Data validation qualifiers were added to samples based on the evaluation of data quality. The absence of a data qualifier indicates that the datum is acceptable without qualification. A "J" or "UJ" qualifier indicates that while the datum may be used in the site evaluation, the associated numerical value should be considered an approximation. An "R" qualifier indicates the datum is rejected and should not be used for site evaluation purposes. Table A-3 presents a summary of data qualifiers.

Signed chain-of-custody records accompanied each data package except NET data package 96.03365. All analyses requested were performed. Method and/or project-specified control limits were met for all samples and all analyses, except as noted below.

For WTPH-G analyses included in NCA data package B612451, surrogate recoveries for soil samples LF-C5, LF-C6, and the laboratory duplicate sample could not be accurately quantified according to NCA, due to interference from coeluting organic compounds present in the samples. No qualifiers were assigned based on lack of recovery information. Surrogate 4-bromofluorobenzene was diluted out during WTPH-G analysis of samples associated with NET data packages 96.03115 and 96.03365; however, recovery of surrogate aaa-trifluorotoluene was within method specified control limits for each of these data packages and, therefore, no qualifiers were assigned. Recovery of surrogate aaa-trifluorotoluene was not reported with samples associated with NET data package 96.02982; however, recovery of surrogate 4-bromofluorobenzene was reported and the result was within method specified control limits and, therefore, no qualifiers were assigned.

For sample TB-5 (data package 96.02763), no method blank, matrix spike, laboratory duplicate, or laboratory control sample (blank spike) was performed by NET for total lead analysis. No qualifiers were assigned based on the lack of this information, but the data user should be aware that without spike or duplicate analyses, there is no measure of accuracy or precision.

For samples TB-8 and OS-1 (NET data package 96.02818) and sample TB-9 (NET data Package 96.02819), no laboratory control sample (blank spike) was performed for TCLP lead analysis; however, matrix spike and matrix spike duplicates (MS/MSD) recoveries were within EPA control limits for inorganic data (EPA 1994b) indicating some level of accuracy. No qualifiers were assigned. For samples LF-C1 and LF-C2 (NET data package 96.03157) and samples LF-C3 and LF-C4 (NET data package 96.03365), no laboratory control sample (blank spike) was performed for WTPH-G analysis; however, surrogate recoveries were within method specified control limits and MS/MSD recoveries were within EPA control limits for organic data (EPA 1994) indicating an adequate level of accuracy. No qualifiers were assigned. For samples: LF-C1 and LF-C2 (NET data package 96.03157); CF-C15 (NET data package 96.02923); CF-C17 (NET data package 96.02970); and CF-9 (NET data package 96.02747), no laboratory control sample (blank spike) was performed for WTPH-D analysis and no MS/MSDs were performed; however, surrogate recoveries were within the method requirements indicating some level of accuracy. No data qualifiers were assigned.

The relative percent difference (RPD) between laboratory duplicate samples associated with total lead analysis for NET data package 96.02669 exceeded EPA control limits (EPA 1994b), indicating that the precision of those results may be questionable. All total lead results associated with this data package (samples TB-1A and TB-1B) were qualified as estimated (J). The RPD between laboratory duplicate samples

associated with WTPH-D analysis for NET data packages 96.03102 and 96.03115 exceeded laboratory requirements, indicating that the precision of those results may be questionable. All WTPH-D results associated with these data packages (samples CF-C25 and CF-C27) were qualified as estimated (J). The RPD between one of the laboratory duplicate samples associated with WTPH-D analysis for NET data package 96.02970 slightly exceeded laboratory requirements; however, the RPD between a second laboratory duplicate sample associated with WTPH-D analysis for the same data package was within the laboratory requirements, therefore, no qualifiers were assigned based on laboratory duplicate results.

No field duplicate results were submitted for WTPH-G, WTPH-D, WTPH-HCID or TCLP lead analysis. Only one field duplicate pair was submitted for total lead analysis. The RPD for this field duplicate pair was 0.0. No qualifiers were assigned based on lack of field duplicate analyses.

MS/MSD recoveries for total lead associated with NET data package 96.02856 were all reported above EPA control limits (EPA 1994b), indicating that sample results for total lead may be biased high. The RPD between the MS/MSD samples also exceeded EPA control limits (EPA 1994a) requirements, indicating that the precision of the sample results for total lead may be questionable. Associated total lead results (samples TB-11 and CF-14) were qualified as estimated (J). For NET data package 96.02898, the associated MS recovery for total lead was reported below EPA control limits (EPA 1994b) and the associated MSD recovery for total lead was above EPA control limits (EPA 1994b), indicating that sample results for total lead may be biased low in some cases and high in other cases. The RPD between the MS/MSD samples also exceeded EPA control limits (EPA 1994b), indicating that the precision of the sample results for total lead may be questionable. Associated total lead results (samples TB-12, NWP-F1, and OS-2) were qualified as estimated (J). For NET data package 96.03139, the associated MS recovery for total lead was reported above EPA control limits (EPA 1994b) and the associated MSD recovery for total lead was within EPA control limits (EPA 1994b), indicating that sample results for total lead may be biased high. The RPD between the MS/MSD samples also exceeded EPA control limits (EPA 1994b), indicating that the precision of the sample results for total lead may be questionable. Associated total lead results (sample CF-C28) were qualified as estimated (J).

No data were rejected as unusable. All laboratory results are considered acceptable with qualifiers assigned as described above. The data set completeness is 100 percent.

TABLE A-1
CLEANUP AREA CONFIRMATION SAMPLES OF SOIL/WASTE MATERIAL
ANALYTICAL CHEMISTRY RESULTS

Sample Name	Sample Location	Date Collected	Total Lead (mg/kg)	TCLP Lead (mg/L)	TPH-D (mg/kg)	TPH-G (mg/kg)	Notes
<u>CULVERT FILL</u>							
CF-W4	Temp east wall, 75 ft from south end	09/11/96	10000				Source material removed
CF-W5	Temp east wall, 65 ft from south end	09/11/96	5500				Source material removed
CF-W6	Temp east wall, 30 ft from south end	09/11/96	7800				Source material removed
CF-W7	Temp south wall	09/11/96	3900				Source material removed
CF-W8	Temp east wall, middle-north area	09/26/96	870				Source material removed
CF-W9	Temp east wall, south of CF-W8	09/28/96	2100				Source material removed
CF-W10	Resample area of CF-W8	09/28/96	3300				Source material removed
CF-W11	Temp east wall, north of CF-W8	09/28/96	7700				Source material removed
CF-W12	Toe of east wall below CF-W8	09/28/96	3100				Source material removed
CF-C8	South wall below propane tank	09/04/96	12				
CF-C9	West half of south wall	09/09/96	630		15 U	18	
CF-C10	Southwest floor	09/09/96	1200		25 U	40	Source material removed
CF-C11	Resample area of CF-C9	09/11/96	560				
CF-C12	Southwest floor, resample CF-C10	09/11/96	280				
CF-C13	Northwest floor	09/14/96	250				
CF-C14	Southwest floor	09/17/96	68 J				
CF-C15	Toe of south wall, middle	09/20/96			21 U		
CF-C16	Top of south wall	09/23/96	150				
CF-C17	Northwest floor	09/25/96			20		
CF-C18	Temporary east wall at south end	09/27/96	9900				Source material removed
CF-C19	South-middle floor	10/01/96	260		19 U		
CF-C20	Central-north floor	10/01/96	250		35		
CF-C21	North floor and wall	10/01/96	12		20 U		
CF-C22	Temporary east wall at south end	10/02/96	3200				Source material removed
CF-C23	South wall near southeast corner	10/02/96	10000				Source material removed
CF-C24	South end of temporary east wall	10/04/96	1700				Source material removed
CF-C25	Central-east floor to toe of bedrock	10/04/96	490		90 J		
CF-C26	North and northeast wall	10/04/96	560				
CF-C27	Central southeast floor	10/07/96			19 UJ	250	Removed but not retested
CF-C28	Central east wall and adjacent floor	10/09/96	170 J				
CF-C29	Northeast lobe, south wall	10/11/96	630				
CF-C30	Northeast lobe, east wall	10/11/96	450				
CF-C31	Northeast lobe, north wall	10/11/96	48				
CF-C32	Southeast lobe, east and north walls	10/14/96	130				
CF-C33	Upper south wall	10/14/96	3200				Source material removed
CF-C34	Duplicate of CF-C33	10/14/96	3100				Source material removed
CF-C35	Upper south floor	10/17/96	45				
CF-C36	Discrete layer in northeast lobe	10/17/96	3200				Thin soil layer with paint
<u>UNDESIGNATED STOCKPILE</u>							
UW-4	South end quarter	09/26/96	150		65	460	Mixed into Treatment Cell
UW-5	South middle quarter	09/26/96	640				
UW-6	North middle quarter	09/26/96	510				
UW-7	North end quarter	09/26/96	610				
<u>NORTH EMBANKMENT FILL</u>							
NE-TP2	North end	10/01/96	590				
NE-TP3	North middle	10/01/96	830				
NE-TP4	Middle	10/01/96	340				
NE-TP5	South middle	10/01/96	350				
NE-TP6	South end	10/01/96	610				
NE-TP6D1	Discrete sample from south end	10/01/96	720				

TABLE A-1
CLEANUP AREA CONFIRMATION SAMPLES OF SOIL/WASTE MATERIAL
ANALYTICAL CHEMISTRY RESULTS

Sample Name	Sample Location	Date Collected	Total Lead (mg/kg)	TCLP Lead (mg/L)	TPH-D (mg/kg)	TPH-G (mg/kg)	Notes
TPH-AFFECTED MATERIAL							
LF-C1	Treatment Cell 1, north half	10/10/96			22 U	60	Material from 1995
LF-C2	Treatment Cell 1, south half	10/10/96			53	35	Material from 1995
LF-C3	Treatment Cell 2 north half	10/23/96			22	940	Material from 1996
LF-C4	Treatment Cell 2, south half	10/23/96			26	950	Material from 1996
LF-C5	Treatment Cell 2 north half	12/20/96				1640	Resample 1996 material
LF-C6	Treatment Cell 2, south half	12/20/96				1480	Resample 1996 material
STABILIZED MATERIAL							
TB-1A	Windrow 1	08/30/96	380 J	0.56			
TB-1B	Windrow 1	08/30/96	530 J	0.46			
TB-2	Windrow 2	09/05/96	1500	0.05 U			
TB-3	Windrow 3	09/06/96	1400	0.80			
TB-4	Windrow 4	09/07/96	2800	0.05 U			
TB-4A	Windrow 4	09/11/96	2400	0.057			Sampled from stockpile
TB-5	Windrow 5	09/09/96	2800	0.05 U			
TB-5A	Windrow 5	09/13/96	1900				Check sample from Bin 1
TB-6	Windrow 6	09/11/96	1100	0.05 U			
TB-7	Windrow 7	09/12/96	660	0.05 U			
TB-8	Windrow 8	09/13/96	1400	0.14			
TB-9	Windrow 9	09/14/96	1200	0.34			
TB-10	Windrow 10	09/16/96	1700	0.88			
TB-11	Windrow 11	09/17/96	1400 J	1.0			
TB-12	Windrow 12	09/18/96	2100 J	0.11			
TB-13	Windrow 13	09/23/96	1000	0.41			Mixed with excavator
TB-13A	Windrow 13	09/24/96	1000	0.05 U			Remixed with Turborator
TB-14	Windrow 14	09/24/96	2400	1.1			
TB-15	Windrow 15	09/26/96	3900	0.23			
TB-16	Windrow 16	09/26/96	3800	0.82			
TB-17	Windrow 17	09/28/96	2200	3.7			
TB-18	Windrow 18	09/30/96	1500	0.81			
TB-19	Windrow 19	10/02/96	8400	2.0			
TB-20	Windrow 20	10/03/96	2900	0.86			
TB-21	Windrow 21	10/04/96	1900	2.6			
TB-22	Windrow 22	10/08/96	2200	2.0			
TB-23	Windrow 23	10/09/96	1800	0.41			
TB-24	Windrow 24	10/15/96	3400	2.4			
TB-25	Windrow 25	10/15/96	1400	0.77			
OS-1	Oversize Pile 1	09/13/96	900	0.05 U			
OS-2	Oversize Pile 2	09/19/96	780 J	0.53			
OS-3	Oversize Pile 3	09/28/96	2600	2.4			
OS-4	Oversize Pile 4	10/11/96	1600	2.1			
NWP-F1*	Hazardous Waste Stockpile floor	09/18/96	700 J				Native after removing pile

* - Intended designation was HWP-F1 but label was misread by laboratory.

J - Analyte was positively identified, but the associated numerical value is considered an estimate.

U - Analyte was not detected at the stated quantitation limit.

UJ - Analyte was reported as undetected. The specified quantitation limit is considered an estimate.

TABLE A-2
GROUNDWATER SAMPLES
ANALYTICAL CHEMISTRY RESULTS

Sample Name:		MW-1				MW-2				MW-3				(dup)
Parameter	Date Collected:	05/04/95	09/21/95	12/20/96	08/19/97	05/03/95	09/19/95	12/20/96	08/19/97	05/04/95	09/20/95	12/20/96	08/19/97	08/19/97
Total Metals (ug/L)														
Antimony		100 U	5 U	5 U	100 U	100 U	5 U	5 U	100 U	100 U	5 U	5 U	100 U	100 U
Arsenic		5 U	4.1	5 U	4 U	5 U	5.4	5 U	5.0	5 U	27	5 U	4.6	4 U
Beryllium		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Cadmium		5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Chromium		10 U	10 U	10 U	10 U	10 U	10 U	11.5	10 U	10 U	10 U	10 U	10 U	10 U
Copper		30 U	30 U	30 U	30 U	30 U	30 U	32.0	30 U	30 U	30 U	30 U	30 U	30 U
Lead		2 U	2 U	2 U	2 U	2 U	2 U	10.5	7.44	2 U	2 U	2 U	2.34	3.83
Mercury		1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Nickel		30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U	30 U
Selenium		150 U	2 U	5 U	5 U	150 U	2 U	5 U	5 U	150 U	2 U	5 U	5 U	5 U
Silver		20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U	20 U
Thallium		200 U	2 U	2 U	200 U	200 U	2 U	2 U	200 U	200 U	2 U	2 U	200 U	200 U
Zinc		20 U	20 U	20 U	20 U	20 U	20 U	26.5	32.0	20 U	20 U	32.6	21.9	36.2
Total Petroleum Hydrocarbons (ug/L)														
TPH by 418.1		1000 U				1000 U				1000 U				
Diesel by WTPH-D			250 U	250 U	250 U		250 U	250 U	250 U		270	250 U	250 U	250 U
Heavy Oil by WTPH-D			750 U				750 U				750 U			
Volatile Organic Compounds (ug/L)														
Benzene		1 U	1 U			1 U	1 U			1 U	1 U			
Bromobenzene		1 U	1 U			1 U	1 U			1 U	1 U			
Bromochloromethane		1 U	1 U			1 U	1 U			1 U	1 U			
Bromodichloromethane		1 U	1 U			1 U	1 U			1 U	1 U			
Bromoform		1 U	1 U			1 U	1 U			1 U	1 U			
Bromomethane		1 U	1 U			1 U	1 U			1 U	1 U			
n-Butylbenzene		1 U	1 U			1 U	1 U			1 U	1 U			
sec-Butylbenzene		1 U	1 U			1 U	1 U			1 U	1 U			
tert-Butylbenzene		1 U	1 U			1 U	1 U			1 U	1 U			
Carbon tetrachloride		1 U	1 U			1 U	1 U			1 U	1 U			
Chlorobenzene		1 U	1 U			1 U	1 U			1 U	1 U			
Chloroethane		1 U	1 U			1 U	1 U			1 U	1 U			
Chloroform		1 U	1 U			1 U	1 U			1 U	1 U			
Chloromethane		1 U	1 U			1 U	1 U			1 U	1 U			
2-Chlorotoluene		1 U	1 U			1 U	1 U			1 U	1 U			
4-Chlorotoluene		1 U	1 U			1 U	1 U			1 U	1 U			
Dibromochloromethane		1 U	1 U			1 U	1 U			1 U	1 U			
1,2-Dibromo-3-chloropropane		1 U	1 U			1 U	1 U			1 U	1 U			
1,2-Dibromomethane		1 U	1 U			1 U	1 U			1 U	1 U			

TABLE A- 2
GROUNDWATER SAMPLES
ANALYTICAL CHEMISTRY RESULTS

Parameter	Sample Name:		MW-1				MW-2				MW-3				(dup)
	Date Collected:		05/04/95	09/21/95	12/20/96	08/19/97	05/03/95	09/19/95	12/20/96	08/19/97	05/04/95	09/20/95	12/20/96	08/19/97	08/19/97
Dibromomethane			1 U	1 U			1 U	1 U			1 U	1 U			
1,2-Dichlorobenzene			1 U	1 U			1 U	1 U			1 U	1 U			
1,3-Dichlorobenzene			1 U	1 U			1 U	1 U			1 U	1 U			
1,4-Dichlorobenzene			1 U	1 U			1 U	1 U			1 U	1 U			
Dichlorodifluoromethane			1 U	1 U			1 U	1 U			1 U	1 U			
1,1-Dichloroethane			1 U	1 U			1 U	1 U			1 U	1 U			
1,2-Dichloroethane			1 U	1 U			1 U	1 U			1 U	1 U			
1,1-Dichloroethene			1 U	1 U			1 U	1 U			1 U	1 U			
cis 1,2-Dichloroethene			1 U	1 U			1 U	1 U			1 U	1 U			
trans 1,2-Dichloroethene			1 U	1 U			1 U	1 U			1 U	1 U			
1,2-Dichloropropane			1 U	1 U			1 U	1 U			1 U	1 U			
1,3-Dichloropropane			1 U	1 U			1 U	1 U			1 U	1 U			
2,2-Dichloropropane			1 U	1 U			1 U	1 U			1 U	1 U			
1,1-Dichloropropene			1 U	1 U			1 U	1 U			1 U	1 U			
Ethylbenzene			1 U	1 U			1 U	1 U			1 U	1 U			
Hexachlorobutadiene			1 U	1 U			1 U	1 U			1 U	1 U			
Isopropylbenzene			1 U	1 U			1 U	1 U			1 U	1 U			
p-Isopropyltoluene			1 U	1 U			1 U	1 U			1 U	1 U			
Methylene chloride			5 U	5 U			5 U	5 U			5 U	5 U			
Naphthalene			1 U	1 U			1 U	1 U			1 U	1 U			
n-Propylbenzene			1 U	1 U			1 U	1 U			1 U	1 U			
Styrene			1 U	1 U			1 U	1 U			1 U	1 U			
1,1,1,2-Tetrachloroethane			1 U	1 U			1 U	1 U			1 U	1 U			
1,1,2,2-Tetrachloroethane			1 U	1 U			1 U	1 U			1 U	1 U			
Tetrachloroethene			1 U	1 U			1 U	1 U			1 U	1 U			
Toluene			1 U	1 U			1 U	1 U			1 U	1 U			
1,2,3-Trichlorobenzene			1 U	1 U			1 U	1 U			1 U	1 U			
1,2,4-Trichlorobenzene			1 U	1 U			1 U	1 U			1 U	1 U			
1,1,1-Trichloroethane			1 U	1 U			1 U	1 U			1 U	1 U			
1,1,2-Trichloroethane			1 U	1 U			1 U	1 U			1 U	1 U			
Trichloroethene			1 U	1 U			1 U	1 U			1 U	1 U			
Trichlorofluoromethane			1 U	1 U			1 U	1 U			1 U	1 U			
1,2,3-Trichloropropane			1 U	1 U			1 U	1 U			1 U	1 U			
1,2,4-Trimethylbenzene			1 U	1 U			1 U	1 U			1 U	1 U			
1,3,5-Trimethylbenzene			1 U	1 U			1 U	1 U			1 U	1 U			
Vinyl chloride			1 U	1 U			1 U	1 U			1 U	1 U			
o-Xylene			1 U	1 U			1 U	1 U			1 U	1 U			
m,p-Xylene			1 U	1 U			1 U	1 U			1 U	1 U			

U - Analyte was not detected at the stated quantitation limit.

TABLE A-3

SUMMARY OF DATA QUALIFIERS

Analyte	Qualifier	Sample Number	Reason
lead	J	TB-1A	Low precision in lab duplicate
		TB-1B	
lead	J	TB-11	High MS/MSD recoveries and low precision in MS/MSD
		CF-C14	
lead	J	TB-12	Low MS/MSD recoveries and low precision in MS/MSD
		NWP-F1	
		OS-2	
lead	J	CF-C28	High MS recovery and low precision in MS/MSD
diesel	J, UJ	CF-C25	Low precision in lab duplicates
		CF-C27	



NATIONAL
ENVIRONMENTAL
TESTING, INC.

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

PROJECT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/11/1996
NET Account No.: 36025
NET Job Number: 96.02669

Project: Winlock Wood Products
Location: 281001.51

RECEIVED

SEP 25 1996

LANDAU ASSOCIATES, INC.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
68921	TB-1A	SOIL	08/30/1996	08/30/1996
68922	TB-1A TCLP	SOIL	08/30/1996	08/30/1996
68923	TB-1B TCLP	SOIL	08/30/1996	08/30/1996
69118	TB-1B	SOIL	08/30/1996	09/09/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

09/11/1996
Job No.: 96.02669

Page: 2

Project Name: Winlock Wood Products
Date Received: 08/30/1996

Sample Number Sample Description
68921 TB-1A

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/03/1996	
Lead, ICP	6010	380	1.0	mg/kg		1

Sample Number Sample Description
68922 TB-1A TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			09/04/1996	
TCLP EXTRACTION PREP	1311	-			09/03/1996	
TCLP - Lead, ICP	6010	0.56	0.05	mg/L	09/04/1996	

Sample Number Sample Description
68923 TB-1B TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			09/04/1996	
TCLP EXTRACTION PREP	1311	-			09/03/1996	
TCLP - Lead, ICP	6010	0.46	0.05	mg/L	09/04/1996	

Sample Number Sample Description
69118 TB-1B.

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/09/1996	
Lead, ICP	6010	530	1.0	mg/kg	09/10/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/11/1996

NET Job Number: 96.02669

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	CCV	Concentration	Percent	Date
	True Concentration	Found	Recovery	Analyzed
Lead, ICP	0.500	0.50	100.0	09/10/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/11/1996

NET Job Number: 96.02669

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
Lead, ICP	50.0	51	102.0	09/04/1996
Lead, ICP	50.0	48	96.0	09/10/1996
TCLP - Lead, ICP	0.500	0.50	100.0	1

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/11/1996

NET Job Number: 96.02669

Contact: Tim Huntting
Project: Winlock Wood Products

alyte	Matrix Spike				MSD				MS/MSD RPD	
	Spike Result	Sample Result	Spike Amount	Units	Percent Recovery	MSD Result	Spike Amount	Units		
Lead, ICP	Dil.	380	50.0	mg/kg		Dil.	50.0	mg/kg	8.70	1
Lead, ICP	Dil.	1100	50.0	mg/kg		Dil.	50.0	mg/kg		
TCLP - Lead, ICP	0.50	ND	0.500	mg/L	100.0	0.50	0.500	mg/L	100.0	0.0

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/11/1996

NET Job Number: 96.02669

Contact: Tim Huntting
Project: Winlock Wood Products
Location: 281001.51

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	09/04/1996
Lead, ICP	ND	1.0	mg/kg	09/10/1996
TCLP - Lead, ICP	ND	0.005	mg/L	

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

QUALITY CONTROL REPORT DUPLICATES

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/11/1996

NET Job Number: 96.02669

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	Original Analysis	Duplicate Analysis	Units	RPD	Date Analyzed	Flag
Lead, ICP	380	3800	mg/kg	163.6	09/04/1996	1

NOTE: Duplicates may not be samples from this job.

RPD - Relative Percent Difference

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.



**NATIONAL
ENVIRONMENTAL
TESTING, INC.**

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

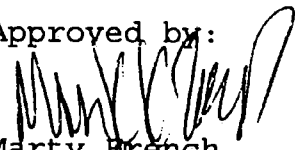
Date: 09/06/1996
NET Account No.: 36025
NET Job Number: 96.02669

Project: Winlock Wood Products
Location: 281001.51

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
68921	TB-1A	SOIL	08/30/1996	08/30/1996
68922	TB-1A TCLP	SOIL	08/30/1996	08/30/1996
68923	TB-1B TCLP	SOIL	08/30/1996	08/30/1996

Approved by:


Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

09/06/1996
Job No.: 96.02669

Page: 2

Project Name: Winlock Wood Products
Date Received: 08/30/1996

Sample Number Sample Description
68921 TB-1A

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/03/1996	
Lead, ICP	6010	380	1.0	mg/kg		1

Sample Number Sample Description
68922 TB-1A TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			09/04/1996	
TCLP EXTRACTION PREP	1311	-			09/03/1996	
TCLP - Lead, ICP	6010	0.56	0.05	mg/L	09/04/1996	

Sample Number Sample Description
68923 TB-1B TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			09/04/1996	
TCLP EXTRACTION PREP	1311	-			09/03/1996	
TCLP - Lead, ICP	6010	0.46	0.05	mg/L	09/04/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/06/1996

NET Job Number: 96.02669

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	LCS	Concentration Found	LCS	Date Analyzed
	True Concentration		% Recovery	
Lead, ICP	50.0	51	102.0	09/04/1996
TCLP - Lead, ICP	0.500	0.50	100.0 1	

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/06/1996

NET Job Number: 96.02669

Contact: Tim Huntting
Project: Winlock Wood Products

	Matrix				Percent Recovery	MSD				MS/MSD RPD
	Spike Result	Sample Result	Spike Amount	Units		Result	Spike Amount	Units	Percent Recovery	
alyte										
Lead, ICP	Dil.	380	50.0	mg/kg		Dil.	50.0	mg/kg		8.70 1
TCLP - Lead, ICP	0.50	ND	0.500	mg/L	100.0	0.50	0.500	mg/L	100.0	0.0

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/06/1996

NET Job Number: 96.02669

Contact: Tim Huntting
Project: Winlock Wood Products
Location: 281001.51

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	09/04/1996
TCLP - Lead, ICP	ND	0.005	mg/L	

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

P. 102x 102x
D. 102x 102x
102x 102x

No

1488

Date 8-30-70

Page 1 of 13/90**PINK COPY - Client Representative**



**NATIONAL
ENVIRONMENTAL
TESTING, INC.**

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/10/1996
NET Account No.: 36025
NET Job Number: 96.02702

Project: Winlock Wood Products
Location: 281001.51

RECEIVED

SEP 25 1996

LANDAU ASSOCIATES, INC.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
69005	CF-C8	SOIL	09/04/1996	09/05/1996
69006	TB-2	SOIL	09/05/1996	09/05/1996
69007	TB-2 TCLP	SOIL	09/05/1996	09/05/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

09/10/1996
Job No.: 96.02702

Page: 2

Project Name: Winlock Wood Products
Date Received: 09/05/1996

Sample Number Sample Description
69005 CF-C8

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/06/1996	
Lead, ICP	6010	12	1.0	mg/kg	09/09/1996	

Sample Number Sample Description
69006 TB-2

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/06/1996	
Lead, ICP	6010	1500	1.0	mg/kg	09/09/1996	

Sample Number Sample Description
69007 TB-2 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			09/06/1996	
TCLP EXTRACTION PREP	1311	-			09/05/1996	
TCLP - Lead, ICP	6010	ND	0.05	mg/L	09/09/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT

CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/10/1996

NET Job Number: 96.02702

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	CCV	Concentration Found	Percent Recovery	Date Analyzed
	True Concentration			
TCLP - Lead, ICP	0.500	0.51	102.0	09/09/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/10/1996

NET Job Number: 96.02702

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
Lead, ICP	100	96	96.0	09/09/1996
TCLP - Lead, ICP	0.500	0.51	102.0	09/09/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/10/1996

NET Job Number: 96.02702

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	Matrix	Sample	Spike	Percent	MSD	MSD	Percent	MS/MSD		
	Spike		Amount			Units			Result	Amount
Lead, ICP	Dil.	1500	50.0	mg/kg		Dil.	50.0	mg/kg	0.80	
TCLP - Lead, ICP	0.49	ND	0.500	mg/L	98.0	0.49	0.500	mg/L	98.0	0.0

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/10/1996

NET Job Number: 96.02702

Contact: Tim Huntting
Project: Winlock Wood Products
Location: 281001.51

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	09/09/1996
TCLP - Lead, ICP	ND	0.005	mg/L	09/09/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

3/90



NATIONAL
ENVIRONMENTAL
TESTING, INC.

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Hunting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/11/1996
NET Account No.: 36025
NET Job Number: 96.02728

RECEIVED

SEP 25 1996

LANDAU ASSOCIATES

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
69113	TB-3	SOIL	09/06/1996	09/06/1996
69114	TB-3 TCLP	SOIL	09/06/1996	09/06/1996

Approved by:


Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Hunting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

09/11/1996
Job No.: 96.02728

Page: 2

Project Name: 281001.51
Date Received: 09/06/1996

Sample Number Sample Description
69113 TB-3

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	80	0.01	%	09/11/1996	
ICP/AA Digestion - Soil	ICP	-	-		09/09/1996	
Lead, ICP	6010	1,400	1.2	mg/kg d	09/10/1996	

Sample Number Sample Description
69114 TB-3 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			09/10/1996	
TCLP EXTRACTION PREP	1311	-			09/09/1996	
TCLP - Lead, ICP	6010	0.80	0.05	mg/L	09/11/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/11/1996

NET Job Number: 96.02728

Contact: Tim Hunting
Project: 281001.51

Analyte	CCV			
	True Concentration	Concentration Found	Percent Recovery	Date Analyzed
Lead, ICP	0.500	0.50	100.0	09/10/1996
TCLP - Lead, ICP	0.500	0.50	100.0	09/11/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/11/1996

NET Job Number: 96.02728

Contact: Tim Hunting
Project: 281001.51

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
Lead, ICP	50.0	48	96.0	09/10/1996
TCLP - Lead, ICP	0.500	0.49	98.0	09/11/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/11/1996

NET Job Number: 96.02728

Contact: Tim Hunting
Project: 281001.51

alyte	Matrix	Sample	Spike	Percent	MSD	MSD	Percent	MS/MSD		
	Spike		Result			Amount			Units	Recovery
Lead, ICP	Dil.	1100	50.0	mg/kg		Dil.	50.0	mg/kg		
TCLP - Lead, ICP	0.49	ND	0.500	mg/L	98.0	0.49	0.500	mg/L	98.0	0.0
TCLP - Lead, ICP	0.49	ND	0.500	mg/L	98.0	0.49	0.500	mg/L	98.0	0.0

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil.= Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/11/1996

NET Job Number: 96.02728

Contact: Tim Hunting
Project: 281001.51
Location: Winlock Wood Products

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	09/10/1996
TCLP - Lead, ICP	ND	0.005	mg/L	09/11/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

NET, INC.
PORTLAND DIVISION

ORDER CONFIRMATION

Date Received: 09/06/1996
Due Date: 09/12/1996
Disposal Method:
P.O. Reference:
Rush Status: Yes
Payment Terms: NET 30
SDG No.

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129
Attention: Accounts Payable

The following samples were received 09/06/1996. This confirms the receipt of the samples and acknowledges the work to be performed on those samples:

NET Project ID: Winlock Wood Products
ET Job Number: 96.02728
NET Quote Number: .0000
Total Number of Samples: 2

Sample Description:

69113 TB-3

For the following analyses:

Test/Procedure	Method	Price	Extension
Solids, Total	160.3	\$.00	\$.00
ICP/AA Digestion - Soil	ICP	\$ 5.00	\$ 5.00
ICP HEADER		\$.00	\$.00
Lead, ICP	6010	\$ 8.00	\$ 8.00
			\$ 13.00

Sample Description:

69114 TB-3 TCLP

For the following analyses:

Test/Procedure	Method	Price	Extension
ICP/AA Digestion - Water	ICP	\$ 5.00	\$ 5.00
ICP HEADER		\$.00	\$.00
TCLP EXTRACTION PREP	1311	\$ 50.00	\$ 50.00
TCLP - Lead, ICP	6010	\$ 8.00	\$ 8.00
			\$ 63.00
		Grand Total: \$	76.00

P.O.B 1029

9. 5020

No.

1490

Date 9/6/96
Page 1 of 1

Page 1 of 1

3/90**PINK COPY - Client Representative**



NATIONAL
ENVIRONMENTAL
TESTING, INC.

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/12/1996
NET Account No.: 36025
NET Job Number: 96.02747

RECEIVED

SEP 25 1996

Project: Winlock Wood Products
Location: 281001.51

LANDAU ASSOCIATES, INC.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
69173	TB-4 TCLP	SOIL	09/07/1996	09/09/1996
69174	TB-4	SOIL	09/07/1996	09/09/1996
69175	CF-9	SOIL	09/09/1996	09/09/1996
69176	CF-10	SOIL	09/09/1996	09/09/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

09/12/1996
Job No.: 96.02747

Page: 2

Project Name: Winlock Wood Products
Date Received: 09/09/1996

Sample Number Sample Description
69173 TB-4 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			09/10/1996	
TCLP EXTRACTION PREP	1311	-			09/09/1996	
TCLP - Lead, ICP	6010	ND	0.05	mg/L	09/11/1996	

Sample Number Sample Description
69174 TB-4

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	74	0.01	%	09/11/1996	
ICP/AA Digestion - Soil	ICP	-	-		09/09/1996	
Lead, ICP	6010	2,800	1.4	mg/kg d	09/10/1996	

Sample Number Sample Description
69175 CF-9

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	71	0.01	%	09/11/1996	
ICP/AA Digestion - Soil	ICP	-	-		09/09/1996	
Lead, ICP	6010	630	1.4	mg/kg d	09/10/1996	
WTPH-Diesel (S) PREP	WTPH-D	-	-		09/10/1996	
WTPH-Diesel (S)						
Diesel	WTPH-D	ND	21.	mg/kg d	09/10/1996	
WTPH-GAS (S)						
Dilution Factor		1	-		09/10/1996	
Gasoline	WTPH-G	18.	4.	mg/kg d	09/10/1996	

Sample Number Sample Description
69176 CF-10

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	74	0.01	%	09/11/1996	
ICP/AA Digestion - Soil	ICP	-	-		09/09/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

09/12/1996
Job No.: 96.02747

Page: 3

Project Name: Winlock Wood Products
Date Received: 09/09/1996

Sample Number Sample Description
69176 CF-10

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Lead, ICP	6010	1,200	1.4	mg/kg d	09/10/1996	
WTPH-HCID (S) PREP		-	-		09/09/1996	
WTPH-HCID (S)						
Dilution Factor		1	-		09/10/1996	
Gasoline	WTPH-HCID	Gas	14.	mg/kg d	09/10/1996	
Diesel	WTPH-HCID	ND	34.	mg/kg d	09/10/1996	
Heavy Oils	WTPH-HCID	ND	68.	mg/kg d	09/10/1996	
WTPH-GAS (S)						
Dilution Factor		1	-		09/11/1996	
Gasoline	WTPH-G	40.	4.	mg/kg d	09/11/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

SURROGATE REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

09/12/1996
Job No.: 96.02747

Page: 4

Project Name: Winlock Wood Products
Date Received: 09/09/1996

SURROGATES METHODS RESULTS DATE ANALYZED FLAG

Sample Number Sample Description
69175 CP-9

o-Terphenyl (Surr.)	WTPH-D	98	%	09/10/1996
aaa-Trifluorotoluene (Surr.)	WTPH-G	97	%	09/10/1996
4-Bromofluorobenzene (Surr.)	WTPH-G	98	%	09/10/1996

Sample Number Sample Description
69176 CP-10

o-Terphenyl (Surr.)	WTPH-HCID	104	%	09/10/1996
aaa-Trifluorotoluene (Surr.)	WTPH-G	107	%	09/11/1996
4-Bromofluorobenzene (Surr.)	WTPH-G	98	%	09/11/1996

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/12/1996

NET Job Number: 96.02747

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	CCV			
	True Concentration	Concentration Found	Percent Recovery	Date Analyzed
Lead, ICP	0.500	0.50	100.0	09/10/1996
TCLP - Lead, ICP	0.500	0.50	100.0	09/11/1996
WTPH-Diesel (S)				
Diesel	402.2	391	97.2	09/10/1996
WTPH-Diesel (S)				
Diesel	402.2	411.9	102.4	09/10/1996
WTPH-GAS (S)				
Gasoline	700	805	115.0	08/28/1996
WTPH-GAS (S)				
Gasoline	700	710	101.4	08/30/1996
WTPH-GAS (S)				
Gasoline	700	655	93.6	09/06/1996
WTPH-GAS (S)				
Gasoline	700	677	96.7	09/09/1996
WTPH-GAS (S)				
Gasoline	700	687	98.1	09/10/1996
WTPH-GAS (S)				
Gasoline	700	715	102.1	09/10/1996
WTPH-GAS (S)				
Gasoline	700	699	99.9	09/11/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/12/1996

NET Job Number: 96.02747

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
Lead, ICP	50.0	49	98.0	09/10/1996
TCLP - Lead, ICP	0.500	0.50	100.0	09/11/1996
WTPH-Diesel (S)				
Diesel	50.28	53.68	106.8	09/09/1996
WTPH-Diesel (S)				
Diesel	50.28	51.75	102.9	09/09/1996
WTPH-GAS (S)				
Gasoline	350	415	118.6	08/28/1996
WTPH-GAS (S)				
Gasoline	350	414	118.3	08/28/1996
WTPH-GAS (S)				
Gasoline	50.8	54.0	106.3	08/28/1996
WTPH-GAS (S)				
Gasoline	50.8	61.2	120.5	L 08/28/1996
WTPH-GAS (S)				
Gasoline	350	330	94.3	08/30/1996
WTPH-GAS (S)				
Gasoline	350	380	108.6	08/30/1996
WTPH-GAS (S)				
Gasoline	350	349	99.7	09/06/1996
WTPH-GAS (S)				
Gasoline	350	378	108.0	09/06/1996
WTPH-GAS (S)				
Gasoline	350	394	112.6	09/09/1996
WTPH-GAS (S)				
Gasoline	350	387	110.6	09/10/1996
WTPH-GAS (S)				
Gasoline	350	353	100.9	09/10/1996
WTPH-GAS (S)				
Gasoline	50.8	55.5	109.3	09/10/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/12/1996

NET Job Number: 96.02747

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
WTPH-GAS (S)				
Gasoline	50.8	57.5	113.2	09/10/1996
WTPH-GAS (S)				
Gasoline	350	344	98.3	09/11/1996
WTPH-GAS (S)				
Gasoline	350	338	96.6	09/11/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/12/1996

NET Job Number: 96.02747

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	Matrix	Sample	Spike	Units	Percent	MSD	MSD	Spike	Units	Percent	MS/MSD	
	Spike					Result						
	Result	Result	Amount		Recovery		Amount		Recovery	RPD		
Lead, ICP	87	38	50.0	mg/kg	98.0	77	50.0	mg/kg	78.0	22.7	MR	
TCLP - Lead, ICP	0.47	ND	0.500	mg/L	94.0	0.48	0.500	mg/L	96.0	2.1		
WTPH-GAS (S)												
Gasoline	58.4	12	50.8	mg/Kg	91.3	61.6	50.8	mg/Kg	97.6	6.7		
WTPH-GAS (S)												
Gasoline	59.8	ND	50.8	mg/Kg	117.7	55.8	50.8	mg/Kg	109.8	6.9		

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/12/1996

NET Job Number: 96.02747

Contact: Tim Huntting
Project: Winlock Wood Products
Location: 281001.51

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	09/10/1996
TCLP - Lead, ICP	ND	0.005	mg/L	09/11/1996
WTPH-HCID (S)				
Gasoline	ND	10	mg/Kg	08/08/1996
Diesel	ND	25	mg/Kg	08/08/1996
Heavy Oils	ND	50	mg/Kg	08/08/1996
o-Terphenyl (Surr.)	91	-	%	08/08/1996
WTPH-HCID (S)				
Gasoline	ND	10	mg/Kg	08/16/1996
Diesel	ND	25	mg/Kg	08/16/1996
Heavy Oils	ND	50	mg/Kg	08/16/1996
o-Terphenyl (Surr.)	90	-	%	08/16/1996
WTPH-HCID (S)				
Gasoline	ND	10	mg/Kg	09/10/1996
Diesel	ND	25	mg/Kg	09/10/1996
Heavy Oils	ND	50	mg/Kg	09/10/1996
o-Terphenyl (Surr.)	85	-	%	09/10/1996
WTPH-Diesel (S)				
Diesel	ND	15	mg/Kg	09/09/1996
o-Terphenyl (Surr.)	80	-	%	09/09/1996
WTPH-Diesel (S)				
Diesel	ND	15	mg/Kg	09/10/1996
o-Terphenyl (Surr.)	97	-	%	09/10/1996
WTPH-GAS (S)				
Gasoline	ND	10	mg/Kg	08/28/1996
aaa-Trifluorotoluene (Surr.)	96	-	%	08/28/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/12/1996

NET Job Number: 96.02747

Contact: Tim Huntting
Project: Winlock Wood Products
Location: 281001.51

Analyte	Blank Analysis	MDL	Units	Date Analyzed
WTPH-GAS (S)				
Gasoline	ND	10	mg/Kg	08/30/1996
aaa-Trifluorotoluene (Surr.)	98	-	%	08/30/1996
WTPH-GAS (S)				
Gasoline	ND	10	mg/Kg	09/06/1996
aaa-Trifluorotoluene (Surr.)	90	-	%	09/06/1996
WTPH-GAS (S)				
Gasoline	ND	10	mg/Kg	09/09/1996
aaa-Trifluorotoluene (Surr.)	95	-	%	09/09/1996
WTPH-GAS (S)				
Gasoline	ND	10	mg/Kg	09/10/1996
aaa-Trifluorotoluene (Surr.)	93	-	%	09/10/1996
WTPH-GAS (S)				
Gasoline	ND	10	mg/Kg	09/10/1996
aaa-Trifluorotoluene (Surr.)	93	-	%	09/10/1996
WTPH-GAS (S)				
Gasoline	ND	10	mg/Kg	09/10/1996
aaa-Trifluorotoluene (Surr.)	88	-	%	09/10/1996
WTPH-GAS (S)				
Gasoline	ND	10	mg/Kg	09/11/1996
aaa-Trifluorotoluene (Surr.)	102	-	%	09/11/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

QUALITY CONTROL REPORT DUPLICATES

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/12/1996

NET Job Number: 96.02747

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	Original Analysis	Duplicate Analysis	Units	RPD	Date Analyzed	Flag
WTPH-HCID (S)						
Gasoline	ND	ND	mg/kg		08/08/1996	
Diesel	Diesel	ND	mg/kg		08/08/1996	F,R
Heavy Oils	H.Oil	H.Oil	mg/kg		08/08/1996	I
WTPH-HCID (S)						
Gasoline	Gas	Gas	mg/Kg		08/16/1996	D
Diesel	Diesel	Diesel	mg/Kg		08/16/1996	
Heavy Oils	H.Oil	H.Oil	mg/Kg		08/16/1996	
WTPH-Diesel (S)						
Diesel	2,700	2,700	mg/kg	0.0	09/09/1996	
WTPH-GAS (S)						
Gasoline	ND	ND	mg/Kg		08/28/1996	
WTPH-GAS (S)						
Gasoline	ND	ND	mg/Kg		08/28/1996	
WTPH-GAS (S)						
Gasoline	ND	ND	mg/Kg		08/28/1996	
WTPH-GAS (S)						
Gasoline	110	110	mg/Kg	0.0	09/09/1996	
WTPH-GAS (S)						
Gasoline	ND	ND	mg/Kg		09/10/1996	
WTPH-GAS (S)						
Gasoline	ND	ND	mg/Kg		09/10/1996	
WTPH-GAS (S)						
Gasoline	40.	40.	mg/kg	6.5	09/11/1996	

NOTE: Duplicates may not be samples from this job.

RPD - Relative Percent Difference

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

Date 9/17/96
Page 1 of 1



**NATIONAL
ENVIRONMENTAL
TESTING, INC.**

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/26/1996
NET Account No.: 36025
NET Job Number: 96.02763

Project: Winlock Wood Products
Location: Winlock Wood Products

RECEIVED

OCT - 2 1996

LANDAU ASSOCIATES, INC.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
69269	TB-5	SOIL	09/09/1996	09/10/1996
69270	TB-5 TCLP	SOIL	09/09/1996	09/10/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

09/26/1996
Job No.: 96.02763

Page: 2

Project Name: Winlock Wood Products
Date Received: 09/10/1996

Sample Number Sample Description
69269 TB-5

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	76	0.01	%	09/12/1996	
ICP/AA Digestion - Soil	ICP	-	-		09/11/1996	
Lead, ICP	6010	2,800	1.3	mg/kg d	09/11/1996	

Sample Number Sample Description
69270 TB-5 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			09/12/1996	
TCLP EXTRACTION PREP	1311	-			09/11/1996	
TCLP - Lead, ICP	6010	ND	0.05	mg/L	09/13/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/26/1996

NET Job Number: 96.02763

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	CCV	Concentration Found	Percent Recovery	Date Analyzed
	True Concentration			
TCLP - Lead, ICP	0.500	0.49	98.0	09/13/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/26/1996

NET Job Number: 96.02763

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
TCLP - Lead, ICP	0.500	0.51	102.0	09/13/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/26/1996

NET Job Number: 96.02763

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	Matrix	Sample	Spike	Percent	MSD	Spike	Percent	MS/MSD		
	Spike		Amount		Result	Amount			Recovery	RPD
TCLP - Lead, ICP	0.50	ND	0.500	mg/L	100.0	0.50	0.500	mg/L	100.0	0.0

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/26/1996

NET Job Number: 96.02763

Contact: Tim Huntting
Project: Winlock Wood Products
Location: Winlock Wood Products

Analyte	Blank Analysis	MDL	Units	Date Analyzed
TCLP - Lead, ICP	ND	0.005	mg/L	09/13/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

3/91

WHITE COPY - Project File	YELLOW COPY - Laboratory	PINK COPY - Client Representative
---------------------------	--------------------------	-----------------------------------



**NATIONAL
ENVIRONMENTAL
TESTING, INC.**

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/13/1996
NET Account No.: 36025
NET Job Number: 96.02782

Project: Winlock Wood Products
Location: 281001.51

RECEIVED

SEP 25 1996

LANDAU ASSOCIATES, INC.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
69378	TB-6	SOIL	09/11/1996	09/11/1996
69379	CF-11	SOIL	09/11/1996	09/11/1996
69380	CF-12	SOIL	09/11/1996	09/11/1996
69381	TB-4A	SOIL	09/11/1996	09/11/1996
69382	TB-6 TCLP	SOIL	09/11/1996	09/11/1996
69383	TB-4A TCLP	SOIL	09/11/1996	09/11/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

09/13/1996
Job No.: 96.02782

Page: 2

Project Name: Winlock Wood Products
Date Received: 09/11/1996

Sample Number Sample Description
69378 TB-6

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/12/1996	
Lead, ICP	6010	1100	1.0	mg/kg	09/12/1996	

Sample Number Sample Description
69379 CF-11

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/12/1996	
Lead, ICP	6010	560	1.0	mg/kg	09/12/1996	

Sample Number Sample Description
69380 CF-12

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/12/1996	
Lead, ICP	6010	280	1.0	mg/kg	09/12/1996	

Sample Number Sample Description
69381 TB-4A

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/12/1996	
Lead, ICP	6010	2400	1.0	mg/kg	09/12/1996	

Sample Number Sample Description
69382 TB-6 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			09/12/1996	
TCLP EXTRACTION PREP	1311	-			09/11/1996	
TCLP - Lead, ICP	6010	ND	0.05	mg/L	09/13/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

09/13/1996
Job No.: 96.02782

Page: 3

Project Name: Winlock Wood Products
Date Received: 09/11/1996

Sample Number Sample Description
69383 TB-4A TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			09/12/1996	
TCLP EXTRACTION PREP	1311	-			09/11/1996	
TCLP - Lead, ICP	6010	0.057	0.05	mg/L	09/13/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/13/1996

NET Job Number: 96.02782

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	CCV	Concentration	Percent	Date
	True Concentration	Found	Recovery	Analyzed
Lead, ICP	0.500	0.51	102.0	09/12/1996
TCLP - Lead, ICP	0.500	0.49	98.0	09/13/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/13/1996

NET Job Number: 96.02782

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	LCS	Concentration Found	LCS	Date Analyzed
	True Concentration		% Recovery	
Lead, ICP	50.0	51	102.0	09/12/1996
TCLP - Lead, ICP	0.500	0.51	102.0	09/13/1996

LCS = Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/13/1996

NET Job Number: 96.02782

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	Matrix	Sample	Spike	Percent	MSD	MSD	Spike	Percent	MS/MSD	
	Spike		Amount		Units		Result		Amount	Units
Lead, ICP	52	4.9	50.0	mg/kg	94.2	51	50.0	mg/kg	92.2	2.1
TCLP - Lead, ICP	0.50	ND	0.500	mg/L	100.0	0.50	0.500	mg/L	100.0	0.0

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/13/1996

NET Job Number: 96.02782

Contact: Tim Huntting
Project: Winlock Wood Products
Location: 281001.51

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	09/12/1996
TCLP - Lead, ICP	ND	0.005	mg/L	09/13/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

Date 9/11/96
Page 1 of 1



NATIONAL
ENVIRONMENTAL
TESTING, INC.

Portland Division -
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/16/1996
NET Account No.: 36025
NET Job Number: 96.02798

RECEIVED

SEP 25 1996


Project: Winlock Wood Products
Location: 281001.51

LANDAU ASSOCIATES, INC.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
69453	CF-W4	SOIL	09/11/1996	09/12/1996
69454	CF-W5	SOIL	09/11/1996	09/12/1996
69455	CF-W6	SOIL	09/11/1996	09/12/1996
69456	CF-W7	SOIL	09/11/1996	09/12/1996
69457	TB-7	SOIL	09/12/1996	09/12/1996
69458	TB-7 TCLP	SOIL	09/12/1996	09/12/1996

Approved by:


Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

09/16/1996
Job No.: 96.02798

Page: 2

Project Name: Winlock Wood Products
Date Received: 09/12/1996

Sample Number Sample Description
69453 CF-W4

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/13/1996	
Lead, ICP	6010	10000	1.0	mg/kg	09/16/1996	

Sample Number Sample Description
69454 CF-W5

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/13/1996	
Lead, ICP	6010	5500	1.0	mg/kg	09/16/1996	

Sample Number Sample Description
69455 CF-W6

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/13/1996	
Lead, ICP	6010	7800	1.0	mg/kg	09/16/1996	

Sample Number Sample Description
69456 CF-W7

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/13/1996	
Lead, ICP	6010	3900	1.0	mg/kg	09/16/1996	

Sample Number Sample Description
69457 TB-7

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/13/1996	
Lead, ICP	6010	660	1.0	mg/kg	09/16/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

09/16/1996
Job No.: 96.02798

Page: 3

Project Name: Winlock Wood Products
Date Received: 09/12/1996

Sample Number Sample Description
69458 TB-7 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			09/13/1996	
TCLP EXTRACTION PREP	1311	-			09/11/1996	
TCLP - Lead, ICP	6010	ND	0.05	mg/L	09/16/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/16/1996

NET Job Number: 96.02798

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	CCV			
	True Concentration	Concentration Found	Percent Recovery	Date Analyzed
Lead, ICP	0.500	0.50	100.0	09/16/1996
TCLP - Lead, ICP	0.500	0.50	100.0	09/16/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/16/1996

NET Job Number: 96.02798

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
Lead, ICP	50.0	48	96.0	09/16/1996
TCLP - Lead, ICP	0.500	0.50	100.0	09/16/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/16/1996

NET Job Number: 96.02798

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	Matrix				Percent Recovery	MSD				MS/MSD RPD
	Spike Result	Sample Result	Spike Amount	Units		MSD Result	Spike Amount	Units	Percent Recovery	
Lead, ICP	Dil.	660	50.0	mg/kg		Dil.	50.0	mg/kg		
TCLP - Lead, ICP	0.50	ND	0.500	mg/L	100.0	0.51	0.500	mg/L	102.0	2.0

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/16/1996

NET Job Number: 96.02798

Contact: Tim Huntting
Project: Winlock Wood Products
Location: 281001.51

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	09/16/1996
TCLP - Lead, ICP	ND	0.005	mg/L	09/16/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.



NATIONAL PROJECT FILE
ENVIRONMENTAL
TESTING, INC.

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/18/1996
NET Account No.: 36025
NET Job Number: 96.02818

Project: Winlock Wood Products
Location: Winlock Wood Products

RECEIVED
SEP 27 1996

LANDAU ASSOCIATES, INC.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
69564	TB-8	SOIL	09/13/1996	09/13/1996
69565	OS-1	SOIL	09/13/1996	09/13/1996
69566	TB-8 TCLP	SOIL	09/13/1996	09/13/1996
69567	OS-1 TCLP	SOIL	09/13/1996	09/13/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

09/18/1996
Job No.: 96.02818

Page: 2

Project Name: Winlock Wood Products
Date Received: 09/13/1996

Sample Number Sample Description
69564 TB-8

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/16/1996	
Lead, ICP	6010	1400	1.0	mg/kg	09/17/1996	

Sample Number Sample Description
69565 OS-1

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/16/1996	
Lead, ICP	6010	900	1.0	mg/kg	09/17/1996	

Sample Number Sample Description
69566 TB-8 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			09/17/1996	
TCLP EXTRACTION PREP	1311	-			09/16/1996	
TCLP - Lead, ICP	6010	0.14	0.05	mg/L	09/17/1996	

Sample Number Sample Description
69567 OS-1 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			09/17/1996	
TCLP EXTRACTION PREP	1311	-			09/16/1996	
TCLP - Lead, ICP	6010	ND	0.05	mg/L	09/17/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/18/1996

NET Job Number: 96.02818

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	CCV		Percent Recovery	Date Analyzed
	True Concentration	Concentration Found		
Lead, ICP	0.500	0.48	96.0	09/17/1996
TCLP - Lead, ICP	0.500	0.50	100.0	09/17/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/18/1996

NET Job Number: 96.02818

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	LCS	Concentration Found	LCS	Date
	True Concentration		% Recovery	
Lead, ICP	50.0	49	98.0	09/17/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/18/1996

NET Job Number: 96.02818

Contact: Tim Huntting
Project: Winlock Wood Products

	Matrix Spike Result	Sample Result	Spike Amount	Units	Percent Recovery	MSD Result	MSD Spike Amount	Units	Percent Recovery	MS/MSD RPD
alyte										
Lead, ICP	Dil.	1400	50.0	mg/kg		Dil.	50.0	mg/kg		
TCLP - Lead, ICP	0.80	0.34	0.500	mg/L	92.0	0.86	0.500	mg/L	104.0	12.1

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil.= Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/18/1996

NET Job Number: 96.02818

Contact: Tim Huntting
Project: Winlock Wood Products
Location: Winlock Wood Products

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	09/17/1996
TCLP - Lead, ICP	ND	0.005	mg/L	09/17/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

3/91

281001.51



NATIONAL
ENVIRONMENTAL
TESTING, INC.

PROJECT FILE

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/18/1996
NET Account No.: 36025
NET Job Number: 96.02819

RECEIVED

SEP 27 1996

Project: Winlock Wood Products
Location: Winlock Wood Products

LANDAU ASSOCIATES, INC.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
69568	TB-5A	SOIL	09/13/1996	09/14/1996
69569	TB-9	SOIL	09/14/1996	09/14/1996
69570	CF-C13	SOIL	09/14/1996	09/14/1996
69571	TB-9 TCLP	SOIL	09/14/1996	09/14/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

09/18/1996
Job No.: 96.02819

Page: 2

Project Name: Winlock Wood Products
Date Received: 09/14/1996

Sample Number Sample Description
69568 TB-5A

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/16/1996	
Lead, ICP	6010	1900	1.0	mg/kg	09/16/1996	

Sample Number Sample Description
69569 TB-9

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/16/1996	
Lead, ICP	6010	1200	1.0	mg/kg	09/16/1996	

Sample Number Sample Description
69570 CF-C13

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/16/1996	
Lead, ICP	6010	250	1.0	mg/kg	09/16/1996	

Sample Number Sample Description
69571 TB-9 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			09/17/1996	
TCLP EXTRACTION PREP	1311	-			09/16/1996	
TCLP - Lead, ICP	6010	0.34	0.05	mg/L	09/17/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/18/1996

NET Job Number: 96.02819

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	CCV	Concentration Found	Percent Recovery	Date Analyzed
	True Concentration			
TCLP - Lead, ICP	0.500	0.50	100.0	09/17/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/18/1996

NET Job Number: 96.02819

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
Lead, ICP	50.0	49	98.0	09/16/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT **MATRIX SPIKE/MATRIX SPIKE DUPLICATE**

Landau Associates, Inc.
 23107 100th Avenue W
 P.O. Box 1029
 Edmonds, WA 98020-9129

Date: 09/18/1996

NET Job Number: 96.02819

Contact: Tim Huntting
 Project: Winlock Wood Products

	Matrix Spike Result	Sample Result	Spike Amount	Units	Percent Recovery	MSD Result	MSD Spike Amount	Units	Percent Recovery	MS/MSD RPD
alyte										
Lead, ICP	50.	2.5	57.	mg/kg	83.6	50.	57.	mg/kg	83.6	0.0
TCLP - Lead, ICP	0.80	0.34	0.500	mg/L	92.0	0.86	0.500	mg/L	104.0	12.1

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/18/1996

NET Job Number: 96.02819

Contact: Tim Huntting
Project: Winlock Wood Products
Location: Winlock Wood Products

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	09/16/1996
TCLP - Lead, ICP	ND	0.005	mg/L	09/17/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

3/91



NATIONAL
ENVIRONMENTAL
TESTING, INC.

PROJECT FILE

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/19/1996
NET Account No.: 36025
NET Job Number: 96.02834

RECEIVED

SEP 27 1996

LANDAU ASSOCIATES, INC.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
69638	TB-10	SOIL	09/16/1996	09/16/1996
69639	TB-10 TCLP	SOIL	09/16/1996	09/16/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

09/19/1996
Job No.: 96.02834
Page: 2

Project Name: Winlock Wood Products
Date Received: 09/16/1996

Sample Number Sample Description
69638 TB-10

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	72	0.01	%	09/19/1996	
ICP/AA Digestion - Soil	ICP	-	-		09/17/1996	
Lead, ICP	6010	1,700	1.4	mg/kg d	09/17/1996	

Sample Number Sample Description
69639 TB-10 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	72	0.01	%	09/19/1996	
ICP/AA Digestion - Water	ICP	-	-		09/18/1996	
TCLP EXTRACTION PREP	1311	-			09/17/1996	
TCLP - Lead, ICP	6010	0.88	0.05	mg/L	09/19/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/19/1996

NET Job Number: 96.02834

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	CCV	Concentration Found	Percent Recovery	Date Analyzed
	True Concentration			
TCLP - Lead, ICP	0.500	0.49	98.0	09/19/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/19/1996

NET Job Number: 96.02834

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	LCS		LCS % Recovery	Date Analyzed
	True Concentration	Concentration Found		
Lead, ICP	50.0	44	88.0	09/17/1996
TCLP - Lead, ICP	0.500	0.49	98.0	09/19/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/19/1996

NET Job Number: 96.02834

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	Matrix	Sample	Spike		Percent	MSD	MSD		Percent	MS/MSD
	Spike Result	Result	Amount	Units	Recovery	Result	Spike Amount	Units	Recovery	RPD
Lead, ICP	44	1.6	50.0	mg/kg	84.8	44	50.0	mg/kg	84.8	0.0
TCLP - Lead, ICP	0.49	ND	0.500	mg/L	98.0	0.49	0.500	mg/L	98.0	0.0

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/19/1996

NET Job Number: 96.02834

Contact: Tim Huntting
Project: Winlock Wood Products
Location: Winlock Wood Products

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/Kg	09/17/1996
TCLP - Lead, ICP	ND	0.005	mg/L	09/19/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

391

281001.51



NATIONAL
ENVIRONMENTAL
TESTING, INC.

PROJECT FILE

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/19/1996
NET Account No.: 36025
NET Job Number: 96.02856

RECEIVED

SEP 27 1996

Project: Winlock Wool Products
Location: Winlock Wood Products

LANDAU ASSOCIATES, INC.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
69694	CF-C14	SOIL	09/17/1996	09/17/1996
69695	TB-11	SOIL	09/17/1996	09/17/1996
69696	TB-11 TCLP	SOIL	09/17/1996	09/17/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

09/19/1996
Job No.: 96.02856

Page: 2

Project Name: Winlock Wool Products
Date Received: 09/17/1996

Sample Number Sample Description
69694 CF-C14

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/18/1996	
Lead, ICP	6010	68	1.0	mg/kg	09/18/1996	M, MR, P

Sample Number Sample Description
69695 TB-11

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/18/1996	
Lead, ICP	6010	1400	1.0	mg/kg	09/18/1996	

Sample Number Sample Description
69696 TB-11 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			09/18/1996	
TCLP EXTRACTION PREP	1311	-			09/18/1996	
TCLP - Lead, ICP	6010	1.0	0.05	mg/L	09/19/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/19/1996

NET Job Number: 96.02856

Contact: Tim Huntting
Project: Winlock Wool Products

Analyte	CCV	Concentration Found	Percent Recovery	Date Analyzed
	True Concentration			
Lead, ICP	0.500	0.49	98.0	09/18/1996
TCLP - Lead, ICP	0.500	0.49	98.0	09/19/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/19/1996

NET Job Number: 96.02856

Contact: Tim Huntting
Project: Winlock Wool Products

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
Lead, ICP	50.0	49	98.0	09/18/1996
TCLP - Lead, ICP	0.500	0.49	98.0	09/19/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/19/1996

NET Job Number: 96.02856

Contact: Tim Huntting
Project: Winlock Wool Products

	Matrix Spike Result	Sample Result	Spike Amount	Units	Percent Recovery	MSD Result	MSD Spike Amount	Units	Percent Recovery	MS/MSD RPD	
alyte											
Lead, ICP	170	68	50.0	mg/kg	204.0	280	50.0	mg/kg	424.0	70.1'	M, MR, P
TCLP - Lead, ICP	0.49	ND	0.500	mg/L	98.0	0.49	0.500	mg/L	98.0	0.0	.

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil.= Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/19/1996

NET Job Number: 96.02856

Contact: Tim Huntting
Project: Winlock Wool Products
Location: Winlock Wood Products

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	09/18/1996
TCLP - Lead, ICP	ND	0.005	mg/L	09/19/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

391



NATIONAL
ENVIRONMENTAL
TESTING, INC.

PROJECT FILE

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/25/1996
NET Account No.: 36025
NET Job Number: 96.02898

Project: Winlock Wood Products
Location: 281001.51

RECEIVED

OCT - 3 1996

LANDAU ASSOCIATES, INC.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
69862	TB-12	SOIL	09/18/1996	09/19/1996
69863	NWP-F1	SOIL	09/19/1996	09/19/1996
69864	OS-2	SOIL	09/19/1996	09/19/1996
69865	TB-12 TCLP	SOIL	09/18/1996	09/19/1996
69866	OS-2 TCLP	SOIL	09/19/1996	09/19/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

09/25/1996
Job No.: 96.02898

Page: 2

Project Name: Winlock Wood Products
Date Received: 09/19/1996

Sample Number Sample Description
69862 TB-12

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/20/1996	
Lead, ICP	6010	2100	1.0	mg/kg	09/20/1996	

Sample Number Sample Description
69863 NWP-F1

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/20/1996	
Lead, ICP	6010	700	1.0	mg/kg	09/20/1996	

Sample Number Sample Description
69864 OS-2

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/20/1996	
Lead, ICP	6010	780	1.0	mg/kg	09/23/1996	

Sample Number Sample Description
69865 TB-12 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			09/23/1996	
TCLP EXTRACTION PREP	1311	-			09/19/1996	
TCLP - Lead, ICP	6010	0.11	0.05	mg/L	09/24/1996	

Sample Number Sample Description
69866 OS-2 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			09/23/1996	
TCLP EXTRACTION PREP	1311	-			09/19/1996	
TCLP - Lead, ICP	6010	0.53	0.05	mg/L	09/24/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/25/1996

NET Job Number: 96.02898

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	CCV		Percent Recovery	Date Analyzed
	True Concentration	Concentration Found		
Lead, ICP	0.500	0.51	102.0	09/23/1996
TCLP - Lead, ICP	0.500	0.49	98.0	09/24/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/25/1996

NET Job Number: 96.02898

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
Lead, ICP	50.0	50	100.0	09/20/1996
TCLP - Lead, ICP	0.500	0.50	100.0	09/23/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/25/1996

NET Job Number: 96.02898

Contact: Tim Huntting
Project: Winlock Wood Products

	Matrix Spike Result	Sample Result	Spike Amount	Units	Percent Recovery	MSD Result	MSD Spike Amount	Units	Percent Recovery	MS/MSD RPD	
Lead, ICP	94	95	50.0	mg/kg	-2.0	320	50.0	mg/kg	450.0	201.8	M, MR, P
TCLP - Lead, ICP	0.46	ND	0.500	mg/L	92.0	0.46	0.500	mg/L	92.0	0.0	

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/25/1996

NET Job Number: 96.02898

Contact: Tim Huntting
Project: Winlock Wood Products
Location: 281001.51

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	09/20/1996
TCLP - Lead, ICP	ND	0.005	mg/L	09/23/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

291



NATIONAL
ENVIRONMENTAL
TESTING, INC.

PROJECT FILE

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/23/1996
NET Account No.: 36025
NET Job Number: 96.02923

Project: Winlock Wood Products
Location: 281001.51

RECEIVED

001-3 1996

LANDAU ASSOCIATES, INC.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
69938	CF-C15	SOIL	09/20/1996	09/20/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

09/23/1996
Job No.: 96.02923

Page: 2

Project Name: Winlock Wood Products
Date Received: 09/20/1996

Sample Number Sample Description
69938 CF-C15

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	71	0.01	†	09/23/1996	
WTPH-Diesel (S) PREP	WTPH-D	-	-		09/23/1996	
WTPH-Diesel (S)						
Diesel	WTPH-D	ND	21.	mg/kg d	09/23/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

SURROGATE REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

09/23/1996
Job No.: 96.02923

Page: 3

Project Name: Winlock Wood Products
Date Received: 09/20/1996

<u>SURROGATES</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
-------------------	----------------	----------------	----------------------	-------------

Sample Number	Sample Description
69938	CF-C15

o-Terphenyl (Surr.)	WTPH-D	81	†	09/23/1996
---------------------	--------	----	---	------------

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/23/1996

NET Job Number: 96.02923

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	CCV	Concentration Found	Percent Recovery	Date Analyzed
	True Concentration			
WTPH-Diesel (S)				
Diesel	402.2	395.2	98.3	09/23/1996
WTPH-Diesel (S)				
Diesel	402.2	384.6	95.6	09/23/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/23/1996

NET Job Number: 96.02923

Contact: Tim Huntting
Project: Winlock Wood Products
Location: 281001.51

Analyte	Blank Analysis	MDL	Units	Date Analyzed
WTPH-Diesel (S)				
Diesel	ND	15	mg/Kg	09/23/1996
o-Terphenyl (Surr.)	81	-	µ	09/23/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R. The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

Date 7-2-80
Page 1 of 1

3/91



NATIONAL
ENVIRONMENTAL
TESTING, INC.

28/001
Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/26/1996
NET Account No.: 36025
NET Job Number: 96.02940

Project: Wonlock Wood Products
Location: Winlock Wood Products

RECEIVED

10/1/96

LANDAU ASSOCIATES, INC.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
69999	TB-13	SOIL	09/23/1996	09/23/1996
70000	TB-13 TCLP	SOIL	09/23/1996	09/23/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

09/26/1996
Job No.: 96.02940

Page: 2

Project Name: Wonlock Wood Products
Date Received: 09/23/1996

Sample Number Sample Description
69999 TB-13

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/24/1996	
Lead, ICP	6010	1000	1.0	mg/kg	09/24/1996	

Sample Number Sample Description
70000 TB-13 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			09/24/1996	
TCLP EXTRACTION PREP	1311	-			09/23/1996	
TCLP - Lead, ICP	6010	0.41	0.05	mg/L	09/25/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/26/1996

NET Job Number: 96.02940

Contact: Tim Huntting
Project: Wonlock Wood Products

Analyte	CCV			
	True Concentration	Concentration Found	Percent Recovery	Date Analyzed
Lead, ICP	0.500	0.49	98.0	09/24/1996
TCLP - Lead, ICP	0.500	0.50	100.0	09/25/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/26/1996

NET Job Number: 96.02940

Contact: Tim Huntting
Project: Wonlock Wood Products

Analyte	LCS	Concentration Found	LCS	Date Analyzed
	True Concentration		% Recovery	
Lead, ICP	50.0	48	96.0	09/24/1996
TCLP - Lead, ICP	0.500	0.51	102.0	09/25/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/26/1996

NET Job Number: 96.02940

Contact: Tim Huntting
Project: Wonlock Wood Products

alyte	Matrix	Sample	Spike	Percent	MSD	MSD	Percent	MS/MSD		
	Spike		Amount			Units			Result	Amount
Lead, ICP	Dil.	1000	50.0	mg/kg		Dil.	50.0	mg/kg		
TCLP - Lead, ICP	0.5i	ND	0.500	mg/L	102.0	0.50	0.500	mg/L	100.0	2.0

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/26/1996

NET Job Number: 96.02940

Contact: Tim Huntting
Project: Wonlock Wood Products
Location: Winlock Wood Products

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	09/24/1996
TCLP - Lead, ICP	ND	0.005	mg/L	09/25/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

3/91



**NATIONAL
ENVIRONMENTAL PROJECT FILE
TESTING, INC.**

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/27/1996
NET Account No.: 36025
NET Job Number: 96.02952

Project: Winlock Wood Products
Location: 281001.51

RECEIVED

OCT - 3 1996

LANDAU ASSOCIATES INC.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
70036	CF-C16	SOIL	09/23/1996	09/24/1996
70037	TB-13A	SOIL	09/24/1996	09/24/1996
70038	TB-13A TCLP	SOIL	09/24/1996	09/24/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

09/27/1996
Job No.: 96.02952

Page: 2

Project Name: Winlock Wood Products
Date Received: 09/24/1996

Sample Number Sample Description
70036 CF-C16

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/25/1996	
Lead, ICP	6010	150	1.0	mg/kg	09/25/1996	

Sample Number Sample Description
70037 TB-13A

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Soil	ICP	-	-		09/25/1996	
Lead, ICP	6010	1000	1.0	mg/kg	09/25/1996	

Sample Number Sample Description
70038 TB-13A TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			09/26/1996	
TCLP EXTRACTION PREP	1311	-			09/25/1996	
TCLP - Lead, ICP	6010	ND	0.05	mg/L	09/26/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/27/1996

NET Job Number: 96.02952

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	CCV		Percent Recovery	Date Analyzed
	True Concentration	Concentration Found		
Lead, ICP	0.500	0.50	100.0	09/25/1996
Lead, ICP	0.500	0.500	100.0	09/26/1996
TCLP - Lead, ICP	0.500	0.50	100.0	09/25/1996
TCLP - Lead, ICP	0.500	0.50	100.0	09/26/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/27/1996

NET Job Number: 96.02952

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
Lead, ICP	50.0	48	96.0	09/25/1996
TCLP - Lead, ICP	0.500	0.49	98.0	09/26/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/27/1996

NET Job Number: 96.02952

Contact: Tim Huntting
Project: Winlock Wood Products

alyte	Matrix	Sample	Spike	Percent	MSD	Spike	Percent	MS/MSD
	Spike		Amount		Result	Amount		
Lead, ICP	Dil.	1000	50.0	mg/kg	Dil.	50.0	mg/kg	
Lead, ICP		ND	50.0	mg/kg		50.0	mg/kg	
TCLP - Lead, ICP	0.71	0.25	0.500	mg/L	92.0	0.70	0.500	mg/L 90.0 2.2

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 09/27/1996

NET Job Number: 96.02952

Contact: Tim Huntting
Project: Winlock Wood Products
Location: 281001.51

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	09/25/1996
TCLP - Lead, ICP	ND	0.005	mg/L	09/26/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

NET, INC.
PORTLAND DIVISION

CUSTOMER REPORTS JOB STATUS REPORT
09/27/1996

JOB NO. REPORT MASTER STATUS

96.02952 REPORTS Successful Generation

Date 7/24/76
Page 1 of 1

PINK COPY - Client Representative

281001.



NATIONAL
ENVIRONMENTAL
TESTING, INC.

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/02/1996
NET Account No.: 36025
NET Job Number: 96.02970

Project: Winlock Wood Clean up
Location: 281001.51

RECEIVED

OCT 11 1996

LANDAU ASSOCIATES, INC.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
70099	TB-14	SOIL	09/24/1996	09/25/1996
70100	TB-14 TCLP	SOIL	09/24/1996	09/25/1996
70101	CF-C17	SOIL	09/25/1996	09/25/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/02/1996
Job No.: 96.02970

Page: 2

Project Name: Winlock Wood Clean up
Date Received: 09/25/1996

Sample Number Sample Description
70099 TB-14

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	76	0.01	%	09/30/1996	
ICP/AA Digestion - Soil	ICP	-	-		09/26/1996	
Lead, ICP	6010	2,400	1.3	mg/kg d	09/26/1996	

Sample Number Sample Description
70100 TB-14 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			09/27/1996	
TCLP EXTRACTION PREP	1311	-			09/25/1996	
TCLP - Lead, ICP	6010	1.1	0.05	mg/L	09/30/1996	

Sample Number Sample Description
70101 CF-C17

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	85	0.01	%	09/30/1996	
WTPH-Diesel (S) PREP	WTPH-D	-	-		09/26/1996	
WTPH-Diesel (S)						
Diesel	WTPH-D	20.	18.	mg/kg d	09/27/1996	E

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

SURROGATE REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/02/1996
Job No.: 96.02970

Page: 3

Project Name: Winlock Wood Clean up
Date Received: 09/25/1996

<u>SURROGATES</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Sample Number 70101	Sample Description CF-C17			
o-Terphenyl (Surr.)	WTPH-D	98	09/27/1996	

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/02/1996

NET Job Number: 96.02970

Contact: Tim Huntting
Project: Winlock Wood Clean up

Analyte	CCV		Percent Recovery	Date Analyzed
	True Concentration	Concentration Found		
Lead, ICP	0.500	0.50	100.0	09/25/1996
Lead, ICP	0.500	0.500	100.0	09/26/1996
TCLP - Lead, ICP	0.500	0.51	102.0	09/30/1996
WTPH-Diesel (S)				
Diesel	402.2	383.5	95.4	09/27/1996
WTPH-Diesel (S)				
Diesel	402.2	398.6	99.1	09/27/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/02/1996

NET Job Number: 96.02970

Contact: Tim Huntting
Project: Winlock Wood Clean up

Analyte	LCS		LCS % Recovery	Date Analyzed
	True Concentration	Concentration Found		
Lead, ICP	50.0	48	96.0	09/26/1996
TCLP - Lead, ICP	0.500	0.51	102.0	09/30/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/02/1996

NET Job Number: 96.02970

Contact: Tim Huntting
Project: Winlock Wood Clean up

	Matrix Spike Result	Sample Result	Spike Amount	Units	Percent Recovery	MSD Result	MSD Spike Amount	Units	Percent Recovery	MS/MSD RPD
alyte										
Lead, ICP	Dil.	1800	50.0	mg/kg		Dil.	50.0	mg/kg		
TCLP - Lead, ICP	Dil.	7.3	0.500	mg/L		Dil.	0.500	mg/L		

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil.= Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/02/1996

NET Job Number: 96.02970

Contact: Tim Huntting
Project: Winlock Wood Clean up
Location: 281001.51

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	09/26/1996
TCLP - Lead, ICP	ND	0.05	mg/L	09/30/1996
WTPH-Diesel (S)				
Diesel	ND	15	mg/Kg	09/21/1996
o-Terphenyl (Surr.)	79	-	%	09/21/1996
WTPH-Diesel (S)				
Diesel	ND	15	mg/Kg	09/23/1996
o-Terphenyl (Surr.)	81	-	%	09/23/1996
WTPH-Diesel (S)				
Diesel	ND	15	mg/Kg	09/23/1996
o-Terphenyl (Surr.)	81	-	%	09/23/1996
WTPH-Diesel (S)				
Diesel	ND	15	mg/Kg	09/24/1996
o-Terphenyl (Surr.)	103	-	%	09/24/1996
WTPH-Diesel (S)				
Diesel	ND	15	mg/Kg	09/27/1996
o-Terphenyl (Surr.)	94	-	%	09/27/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

QUALITY CONTROL REPORT DUPLICATES

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/02/1996

NET Job Number: 96.02970

Contact: Tim Huntting
Project: Winlock Wood Clean up

Analyte	Original Analysis	Duplicate Analysis	Units	RPD	Date Analyzed	Flag
WTPH-Diesel (S)						
Diesel	ND	ND	mg/kg		09/23/1996	
WTPH-Diesel (S)						
Diesel	910	710	mg/kg	24.3	09/25/1996	R

NOTE: Duplicates may not be samples from this job.

RPD - Relative Percent Difference

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

3/91



NATIONAL
ENVIRONMENTAL
TESTING, INC.

PROJECT FILE

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/07/1996
NET Account No.: 36025
NET Job Number: 96.02982

Project: Winlock Wood Cleanup
Location: 281001.51

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
70150	TB-15	SOIL	09/26/1996	09/26/1996
70151	TB-15 TCLP	SOIL	09/26/1996	09/26/1996
70152	UW-4	SOIL	09/26/1996	09/26/1996
70153	UW-5	SOIL	09/26/1996	09/26/1996
70154	UW-6	SOIL	09/26/1996	09/26/1996
70155	UW-7	SOIL	09/26/1996	09/26/1996
70156	CF-W8	SOIL	09/26/1996	09/26/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/07/1996
Job No.: 96.02982
Page: 2

Project Name: Winlock Wood Cleanup
Date Received: 09/26/1996

Sample Number Sample Description
70150 TB-15

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	76	0.01	%	09/30/1996	
ICP/AA Digestion - Soil	ICP	-	-		09/27/1996	
Lead, ICP	6010	3,900	1.3	mg/kg d	09/27/1996	

Sample Number Sample Description
70151 TB-15 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			09/27/1996	
TCLP EXTRACTION PREP	1311	-			09/25/1996	
TCLP - Lead, ICP	6010	0.23	0.05	mg/L	09/30/1996	

Sample Number Sample Description
70152 UW-4

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	65	0.01	%	10/02/1996	
ICP/AA Digestion - Soil	ICP	-	-		09/27/1996	
Lead, ICP	6010	150	1.5	mg/kg d	09/27/1996	
WTPH-Diesel (S) PREP	WTPH-D	-	-		10/01/1996	
WTPH-Diesel (S)						
Diesel	WTPH-D	65.	23.	mg/kg d	10/01/1996	C, F
WTPH-GAS (S)						
Dilution Factor		100	-		10/03/1996	
Gasoline	WTPH-G	460	150	mg/kg d	10/03/1996	

Sample Number Sample Description
70153 UW-5

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	70	0.01	%	10/02/1996	
ICP/AA Digestion - Soil	ICP	-	-		09/27/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/07/1996
Job No.: 96.02982

Page: 3

Project Name: Winlock Wood Cleanup
Date Received: 09/26/1996

Sample Number 70153
Sample Description UW-5

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Lead, ICP	6010	640	1.4	mg/kg d	09/27/1996	

Sample Number 70154
Sample Description UW-6

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	71	0.01	%	09/30/1996	
ICP/AA Digestion - Soil	ICP	-	-		09/27/1996	
Lead, ICP	6010	510	1.4	mg/kg d	09/27/1996	

Sample Number 70155
Sample Description UW-7

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	66	0.01	%	09/30/1996	
ICP/AA Digestion - Soil	ICP	-	-		09/27/1996	
Lead, ICP	6010	610	1.5	mg/kg d	09/27/1996	

Sample Number 70156
Sample Description CF-W8

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	76	0.01	%	09/30/1996	
ICP/AA Digestion - Soil	ICP	-	-		09/27/1996	
Lead, ICP	6010	870	1.3	mg/kg d	09/27/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

SURROGATE REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/07/1996
Job No.: 96.02982

Page: 4

Project Name: Winlock Wood Cleanup
Date Received: 09/26/1996

SURROGATES

METHODS

RESULTS

DATE ANALYZED FLAG

Sample Number
70152

Sample Description
UW-4

o-Terphenyl (Surr.)	WTPH-D	133	†	10/01/1996
aaa-Trifluorotoluene (Surr.)	WTPH-G	-	†	10/03/1996
4-Bromofluorobenzene (Surr.)	WTPH-G	99	†	10/03/1996

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/07/1996

NET Job Number: 96.02982

Contact: Tim Huntting
Project: Winlock Wood Cleanup

Analyte	CCV	Concentration Found	Percent Recovery	Date Analyzed
	True Concentration			
Lead, ICP	0.500	0.51	102.0	09/27/1996
TCLP - Lead, ICP	0.500	0.51	102.0	09/30/1996
WTPH-Diesel (S)				
Diesel	402.2	385.5	95.8	10/01/1996
WTPH-Diesel (S)				
Diesel	402.2	412.8	102.6	10/01/1996
WTPH-GAS (S)				
Gasoline	2.50	2.63	105.2	10/03/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/07/1996

NET Job Number: 96.02982

Contact: Tim Huntting
Project: Winlock Wood Cleanup

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
Lead, ICP	50.0	50	100.0	09/27/1996
TCLP - Lead, ICP	0.500	0.51	102.0	09/30/1996
WTPH-Diesel (S)				
Diesel	50.28	51	101.4	10/01/1996
WTPH-Diesel (S)				
Diesel	50.28	51	101.4	10/01/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/07/1996

NET Job Number: 96.02982

Contact: Tim Huntting
Project: Winlock Wood Cleanup

Analyte	Matrix	Sample	Spike	Units	Percent	MSD	MSD	Spike	Units	Percent	MS/MSD
	Spike					Result					
	Result	Result	Amount		Recovery	Result	Amount			Recovery	RPD
Lead, ICP	Dil.	3000	50.0	mg/kg		Dil.	50.0	mg/kg			
TCLP - Lead, ICP	Dil.	7.3	0.500	mg/L		Dil.	0.500	mg/L			
WTPH-GAS (S)											
Gasoline	3.34	1.30	2.50	mg/Kg	81.6	3.34	2.50	mg/Kg	81.6		0.0

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/07/1996

NET Job Number: 96.02982

Contact: Tim Huntting
Project: Wihlock Wood Cleanup
Location: 281001.51

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	09/27/1996
TCLP - Lead, ICP	ND	0.05	mg/L	09/30/1996
WTPH-Diesel (S)				
Diesel	ND	15	mg/Kg	10/01/1996
o-Terphenyl (Surr.)	92	-	%	10/01/1996
WTPH-Diesel (S)				
Diesel	ND	15	mg/Kg	10/02/1996
o-Terphenyl (Surr.)	104	-	%	10/02/1996
WTPH-GAS (S)				
Gasoline	ND	10	mg/Kg	10/03/1996
aaa-Trifluorotoluene (Surr.)	95	-	%	10/03/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

3/91



NATIONAL
ENVIRONMENTAL
TESTING, INC.

PROJECT FILE

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/02/1996
NET Account No.: 36025
NET Job Number: 96.03011

Project: Winlock Wood Products
Location: Winlock Wood Products

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
70289	TB-16	SOIL	09/26/1996	09/27/1996
70290	CF-C18	SOIL	09/27/1996	09/27/1996
70291	TB-16 TCLP	SOIL	09/26/1996	09/27/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/02/1996
Job No.: 96.03011
Page: 2

Project Name: Winlock Wood Products
Date Received: 09/27/1996

Sample Number Sample Description
70289 TB-16

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	78	0.01	%	10/02/1996	
ICP/AA Digestion - Soil	ICP	-	-		09/30/1996	
Lead, ICP	6010	3,800	1.3	mg/kg d	09/30/1996	

Sample Number Sample Description
70290 CF-C18

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	82	0.01	%	09/30/1996	
ICP/AA Digestion - Soil	ICP	-	-		09/30/1996	
Lead, ICP	6010	9,900	1.2	mg/kg d	09/30/1996	

Sample Number Sample Description
70291 TB-16 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	78	0.01	%	10/02/1996	
ICP/AA Digestion - Water	ICP	-			10/01/1996	
TCLP EXTRACTION PREP	1311	-			09/30/1996	
TCLP - Lead, ICP	6010	0.82	0.05	mg/L	10/01/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/02/1996

NET Job Number: 96.03011

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	CCV	Concentration Found	Percent Recovery	Date Analyzed
	True Concentration			
Lead, ICP	0.500	0.52	104.0	09/30/1996
TCLP - Lead, ICP	0.500	0.50	100.0	10/01/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/02/1996

NET Job Number: 96.03011

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
Lead, ICP	50.0	50	100.0	09/30/1996
TCLP - Lead, ICP	0.500	0.50	100.0	10/01/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT **MATRIX SPIKE/MATRIX SPIKE DUPLICATE**

Landau Associates, Inc.
 23107 100th Avenue W
 P.O. Box 1029
 Edmonds, WA 98020-9129

Date: 10/02/1996

NET Job Number: 96.03011

Contact: Tim Huntting
 Project: Winlock Wood Products

alyte	Matrix	Sample	Spike	Units	Percent	MSD	MSD	Spike	Percent	MS/MSD
	Spike					Result				
Lead, ICP	Dil.	9,900	50.0	mg/kg		Dil.	50.0	mg/kg		
TCLP - Lead, ICP	1.00	0.52	0.500	mg/L	96.0	1.00	0.500	mg/L	96.0	0.0

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike
 MSD = Matrix Spike Duplicate
 RPD = Relative Percent Difference
 dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/02/1996

NET Job Number: '96.03011

Contact: Tim Huntting
Project: Winlock Wood Products
Location: Winlock Wood Products

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/Kg	09/30/1996
TCLP - Lead, ICP	ND	0.005	mg/L	10/01/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

3491

28/001.



NATIONAL
ENVIRONMENTAL
TESTING, INC.

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

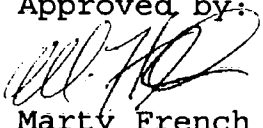
Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/02/1996
NET Account No.: 36025
NET Job Number: 96.03017

Project: Winlock Wood Products
Location: Winlock Wood Products

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
70334	TB -17	SOIL	09/28/1996	09/30/1996
70335	CF-W9	SOIL	09/28/1996	09/30/1996
70336	CF-W10	SOIL	09/28/1996	09/30/1996
70337	CF-W11	SOIL	09/28/1996	09/30/1996
70338	CF-W12	SOIL	09/28/1996	09/30/1996
70339	OS-3	SOIL	09/28/1996	09/30/1996
70340	TB-17 TCLP	SOIL	09/28/1996	09/30/1996
70341	OS-3 TCLP	SOIL	09/28/1996	09/30/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/02/1996
Job No.: 96.03017
Page: 2

Project Name: Winlock Wood Products
Date Received: 09/30/1996

Sample Number Sample Description
70334 TB -17

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	77	0.01	%	10/02/1996	
ICP/AA Digestion - Soil	ICP	-	-		09/30/1996	
Lead, ICP	6010	2,200	1.3	mg/kg d	10/01/1996	

Sample Number Sample Description
70335 CF-W9

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	80	0.01	%	10/02/1996	
ICP/AA Digestion - Soil	ICP	-	-		09/30/1996	
Lead, ICP	6010	2,100	1.2	mg/kg d	10/01/1996	

Sample Number Sample Description
70336 CF-W10

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	78	0.01	%	10/02/1996	
ICP/AA Digestion - Soil	ICP	-	-		09/30/1996	
Lead, ICP	6010	3,300	1.3	mg/kg d	10/01/1996	

Sample Number Sample Description
70337 CF-W11

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	74	0.01	%	10/02/1996	
ICP/AA Digestion - Soil	ICP	-	-		09/30/1996	
Lead, ICP	6010	7,700	1.4	mg/kg d	10/01/1996	

Sample Number Sample Description
70338 CF-W12

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
-------------------	----------------	----------------	---------------------	--------------	----------------------	-------------

A sample result of ND indicates the parameter was Not Detected at the reporting limit:

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/02/1996
Job No.: 96.03017

Page: 3

Project Name: Winlock Wood Products
Date Received: 09/30/1996

Sample Number Sample Description
70338 CF-W12

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	80	0.01	%	10/02/1996	
ICP/AA Digestion - Soil	ICP	-	-		09/30/1996	
Lead, ICP	6010	3,100	1.2	mg/kg d	10/01/1996	

Sample Number Sample Description
70339 OS-3

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	78	0.01	%	10/02/1996	
ICP/AA Digestion - Soil	ICP	-	-		09/30/1996	
Lead, ICP	6010	2,600	1.3	mg/kg d	10/01/1996	

Sample Number Sample Description
70340 TB-17 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			10/01/1996	
TCLP EXTRACTION PREP	1311	-			09/30/1996	
TCLP - Lead, ICP	6010	3.7	0.05	mg/L	10/01/1996	

Sample Number Sample Description
70341 OS-3 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			10/01/1996	
TCLP EXTRACTION PREP	1311	-			09/30/1996	
TCLP - Lead, ICP	6010	2.4	0.05	mg/L	10/01/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/02/1996

NET Job Number: 96.03017

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	CCV		Percent Recovery	Date Analyzed
	True Concentration	Concentration Found		
Lead, ICP	0.500	0.49	98.0	10/01/1996
TCLP - Lead, ICP	0.500	0.50	100.0	10/01/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/02/1996

NET Job Number: 96.03017

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	LCS	Concentration Found	LCS	Date
	True Concentration		% Recovery	
Lead, ICP	50.0	50	100.0	09/30/1996
TCLP - Lead, ICP	0.500	0.50	100.0	10/01/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/02/1996

NET Job Number: 96.03017

Contact: Tim Huntting
Project: Winlock Wood Products

alyte	Matrix				Percent Recovery	MSD				MS/MSD RPD
	Spike Result	Sample Result	Spike Amount	Units		MSD Result	Spike Amount	Units	Percent Recovery	
Lead, ICP	Dil.	9,900	50.0	mg/kg		Dil.	50.0	mg/kg		
TCLP - Lead, ICP	1.00	0.52	0.500	mg/L	96.0	1.00	0.500	mg/L	96.0	0.0

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil.= Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/02/1996

NET Job Number: 96.03017

Contact: Tim Huntting
Project: Winlock Wood Products
Location: Winlock Wood Products

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/Kg	09/30/1996
TCLP - Lead, ICP	ND	0.005	mg/L	10/01/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

Date 1/28/90
Page 1 of 1

3/91



**NATIONAL
ENVIRONMENTAL
TESTING, INC.**

281001.
Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/04/1996
NET Account No.: 36025
NET Job Number: 96.03046

Project: Winlock Wood Products
Location: Winlock Wood Products

RECEIVED

OCT 11 1996

LANDAU ASSOCIATES, INC.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
70413	TB-18	SOIL	09/30/1996	10/01/1996
70414	NE-TP2	SOIL	10/01/1996	10/01/1996
70415	NE-TP3	SOIL	10/01/1996	10/01/1996
70416	NE-TP4	SOIL	10/01/1996	10/01/1996
70417	NE-TP5	SOIL	10/01/1996	10/01/1996
70418	NE-TP6	SOIL	10/01/1996	10/01/1996
70419	NE-TP6 D1	SOIL	10/01/1996	10/01/1996
70420	CF-C19	SOIL	10/01/1996	10/01/1996
70421	CF-C20	SOIL	10/01/1996	10/01/1996
70422	CF-C21	SOIL	10/01/1996	10/01/1996
70423	TB-18 TCLP	SOIL	09/30/1996	10/01/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/04/1996
Job No.: 96.03046

Page: 2

Project Name: Winlock Wood Products
Date Received: 10/01/1996

Sample Number Sample Description
70413 TB-18

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	75	0.01	%	10/02/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/02/1996	
Lead, ICP	6010	1,500	1.3	mg/kg d	10/02/1996	

Sample Number Sample Description
70414 NE-TP2

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	81	0.01	%	10/02/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/02/1996	
Lead, ICP	6010	590	1.2	mg/kg d	10/02/1996	

Sample Number Sample Description
70415 NE-TP3

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	76	0.01	%	10/02/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/02/1996	
Lead, ICP	6010	830	1.3	mg/kg d	10/02/1996	

Sample Number Sample Description
70416 NE-TP4

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	77	0.01	%	10/02/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/02/1996	
Lead, ICP	6010	340	1.3	mg/kg d	10/02/1996	

Sample Number Sample Description
70417 NE-TP5

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
-------------------	----------------	----------------	---------------------	--------------	----------------------	-------------

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/04/1996
Job No.: 96.03046

Page: 3

Project Name: Winlock Wood Products
Date Received: 10/01/1996

Sample Number Sample Description
70417 NE-TP5

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	74	0.01	%	10/02/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/02/1996	
Lead, ICP	6010	350	1.4	mg/kg d	10/02/1996	

Sample Number Sample Description
70418 NE-TP6

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	72	0.01	%	10/02/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/02/1996	
Lead, ICP	6010	610	1.4	mg/kg d	10/02/1996	

Sample Number Sample Description
70419 NE-TP6 D1

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	80	0.01	%	10/02/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/02/1996	
Lead, ICP	6010	720	1.2	mg/kg d	10/02/1996	

Sample Number Sample Description
70420 CP-C19

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	78	0.01	%	10/02/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/02/1996	
Lead, ICP	6010	260	1.3	mg/kg d	10/02/1996	
WTPH-Diesel (S) PREP	WTPH-D	-	-		10/02/1996	
WTPH-Diesel (S)						
Diesel	WTPH-D	ND	19.	mg/kg d	10/02/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/04/1996
Job No.: 96.03046

Page: 4

Project Name: Winlock Wood Products
Date Received: 10/01/1996

Sample Number Sample Description
70421 CF-C20

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	72	0.01	%	10/02/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/02/1996	
Lead, ICP	6010	250	1.4	mg/kg d	10/02/1996	
WTPH-Diesel (S) PREP	WTPH-D	-	-		10/02/1996	
WTPH-Diesel (S)						
Diesel	WTPH-D	35.	21.	mg/kg d	10/02/1996	B1

Sample Number Sample Description
70422 CF-C21

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	73	0.01	%	10/02/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/02/1996	
Lead, ICP	6010	12.	1.4	mg/kg d	10/02/1996	
WTPH-Diesel (S) PREP	WTPH-D	-	-		10/02/1996	
WTPH-Diesel (S)						
Diesel	WTPH-D	ND	20.	mg/kg d	10/02/1996	

Sample Number Sample Description
70423 TB-18 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			10/03/1996	
TCLP EXTRACTION PREP	1311	-			10/02/1996	
TCLP - Lead, ICP	6010	0.81	0.05	mg/L	10/04/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

SURROGATE REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/04/1996
Job No.: 96.03046

Page: 5

Project Name: Winlock Wood Products
Date Received: 10/01/1996

<u>SURROGATES</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
-------------------	----------------	----------------	----------------------	-------------

Sample Number	Sample Description
70420	CF-C19

o-Terphenyl (Surr.)	WTPH-D	108	‡	10/02/1996
---------------------	--------	-----	---	------------

Sample Number	Sample Description
70421	CF-C20

o-Terphenyl (Surr.)	WTPH-D	114	‡	10/02/1996
---------------------	--------	-----	---	------------

Sample Number	Sample Description
70422	CF-C21

o-Terphenyl (Surr.)	WTPH-D	109	‡	10/02/1996
---------------------	--------	-----	---	------------

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/04/1996

NET Job Number: 96.03046

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	CCV True Concentration	Concentration Found	Percent Recovery	Date Analyzed
Lead, ICP	0.500	0.500	100.0	10/02/1996
TCLP - Lead, ICP	0.500	0.49	98.0	10/04/1996
WTPH-Diesel (S)				
Diesel	402.2	393.8	97.9	10/02/1996
WTPH-Diesel (S)				
Diesel	402.2	387.9	96.4	10/02/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/04/1996

NET Job Number: 96.03046

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	LCS	Concentration Found	LCS	Date
	True Concentration		% Recovery	
Lead, ICP	50.0	50	100.0	10/02/1996
TCLP - Lead, ICP	0.500	0.52	104.0	10/04/1996
WTPH-Diesel (S)				
Diesel	50.28	51	101.4	10/01/1996
WTPH-Diesel (S)				
Diesel	50.28	51	101.4	10/01/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/04/1996

NET Job Number: 96.03046

Contact: Tim Huntting
Project: Winlock Wood Products

alyte	Matrix	Sample	Spike	Units	Percent	MSD	Spike	Units	Percent	MS/MSD
	Spike		Result			Amount	Result			
Lead, ICP	Dil.	1,500	50.0	mg/kg		Dil.	50.0	mg/kg		
TCLP - Lead, ICP	0.50	ND	0.500	mg/L	100.0	0.55	0.500	mg/L	110.0	9.5

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/04/1996

NET Job Number: 96.03046

Contact: Tim Huntting
Project: Winlock Wood Products
Location: Winlock Wood Products

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	10/02/1996
TCLP - Lead, ICP	ND	0.005	mg/L	10/04/1996
WTPH-Diesel (S)				
Diesel	ND	15	mg/Kg	10/01/1996
o-Terphenyl (Surr.)	92	-	%	10/01/1996
WTPH-Diesel (S)				
Diesel	ND	15	mg/Kg	10/02/1996
o-Terphenyl (Surr.)	104	-	%	10/02/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

Date 10/1/12
Page 1 of 1

3/91



NATIONAL
ENVIRONMENTAL
TESTING, INC.

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/07/1996
NET Account No.: 36025
NET Job Number: 96.03067

Project: Winlock Wood Products
Location: Winlock Wood Products

RECEIVED

OCT 16 1996

Landau Associates, Inc.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
70493	TB-19	SOIL	10/02/1996	10/02/1996
70494	CF-C22	SOIL	10/02/1996	10/02/1996
70495	CF-C23	SOIL	10/02/1996	10/02/1996
70496	TB-19 TCLP	SOIL	10/02/1996	10/02/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/07/1996
Job No.: 96.03067
Page: 2

Project Name: Winlock Wood Products
Date Received: 10/02/1996

Sample Number Sample Description
70493 TB-19

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	76	0.01	%	10/07/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/03/1996	
Lead, ICP	6010	8,400	1.3	mg/kg d	10/04/1996	

Sample Number Sample Description
70494 CF-C22

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	80	0.01	%	10/07/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/03/1996	
Lead, ICP	6010	3,200	1.2	mg/kg d	10/04/1996	

Sample Number Sample Description
70495 CF-C23

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	71	0.01	%	10/07/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/03/1996	
Lead, ICP	6010	10,000	1.4	mg/kg d	10/04/1996	

Sample Number Sample Description
70496 TB-19 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			10/04/1996	
TCLP EXTRACTION PREP	1311	-			10/03/1996	
TCLP - Lead, ICP	6010	2.0	0.05	mg/L	10/04/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/07/1996

NET Job Number: 96.03067

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	CCV	Concentration Found	Percent Recovery	Date Analyzed
	True Concentration			
Lead, ICP	0.500	0.49	98.0	10/04/1996
TCLP - Lead, ICP	0.500	0.49	98.0	10/04/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/07/1996

NET Job Number: 96.03067

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
Lead, ICP	50.0	53	106.0	10/04/1996
TCLP - Lead, ICP	0.500	0.50	100.0	10/04/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/07/1996

NET Job Number: 96.03067

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	Matrix	Sample Result	Spike Result	Spike Amount	Units	Percent Recovery	MSD	MSD Spike Amount	Units	Percent Recovery	MS/MSD RPD
	Result						Result				
Lead, ICP	Dil.	2600	50.0	mg/kg			Dil.	50.0	mg/kg		
TCLP - Lead, ICP	0.50	ND	0.500	mg/L	100.0	0.50	0.500	mg/L	100.0	0.0	

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/07/1996

NET Job Number: 96.03067

Contact: Tim Huntting
Project: Winlock Wood Products
Location: Winlock Wood Products

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/Kg	10/04/1996
TCLP - Lead, ICP	ND	0.005	mg/L	10/04/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

3/91



NATIONAL
ENVIRONMENTAL
TESTING, INC.

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/08/1996
NET Account No.: 36025
NET Job Number: 96.03084

Project: Winlock Wood Products
Location: Winlock Wood Products

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
70552	TB-20	SOIL	10/03/1996	10/03/1996
70553	TB-20 TCLP	SOIL	10/03/1996	10/03/1996

Approved by:

A handwritten signature in dark ink, appearing to read "Marty French".

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/08/1996
Job No.: 96.03084

Page: 2

Project Name: Winlock Wood Products
Date Received: 10/03/1996

Sample Number Sample Description
70552 TB-20

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	76	0.01	%	10/07/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/04/1996	
Lead, ICP	6010	2,900	1.3	mg/kg d	10/07/1996	

Sample Number Sample Description
70553 TB-20 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			10/04/1996	
TCLP EXTRACTION PREP	1311	-			10/03/1996	
TCLP - Lead, ICP	6010	0.86	0.05	mg/L	10/07/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/08/1996

NET Job Number: 96.03084

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	CCV True Concentration	Concentration Found	Percent Recovery	Date Analyzed
Lead, ICP	0.500	0.50	100.0	10/07/1996
TCLP - Lead, ICP	0.500	0.50	100.0	10/07/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/08/1996

NET Job Number: 96.03084

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
Lead, ICP	50.0	49	98.0	10/07/1996
TCLP - Lead, ICP	0.500	0.50	100.0	10/04/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/08/1996

NET Job Number: 96.03084

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	Matrix	Sample	Spike	Percent	MSD	MSD	Spike	Percent	MS/MSD	
	Spike		Result		Amount	Units	Recovery		Result	Amount
Lead, ICP	Dil.	2200	50.0	mg/kg		Dil.	50.0	mg/kg		
TCLP - Lead, ICP	0.50	ND	0.500	mg/L	100.0	0.50	0.500	mg/L	100.0	0.0

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/08/1996

NET Job Number: 96.03084

Contact: Tim Huntting
Project: Winlock Wood Products
Location: Winlock Wood Products

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	10/07/1996
TCLP - Lead, ICP	ND	0.005	mg/L	10/04/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

PINK COPY - Client Representative



NATIONAL
ENVIRONMENTAL
TESTING, INC.

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/09/1996
NET Account No.: 36025
NET Job Number: 96.03102

Project: Winlock Wood Cleanup
Location: Winlock Wood Cleanup

RECEIVED

OCT 16 1996

Landau Associates, Inc.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
70643	CF-C24	SOIL	10/04/1996	10/04/1996
70644	CF-C25	SOIL	10/04/1996	10/04/1996
70645	CF-C26	SOIL	10/04/1996	10/04/1996
70646	TB-21	SOIL	10/04/1996	10/04/1996
70647	TB-21 TCLP	SOIL	10/04/1996	10/04/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/09/1996
Job No.: 96.03102

Page: 2

Project Name: Winlock Wood Cleanup
Date Received: 10/04/1996

Sample Number Sample Description
70643 CF-C24

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	76	0.01	%	10/07/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/07/1996	
Lead, ICP	6010	1,700	1.3	mg/kg d	10/07/1996	

Sample Number Sample Description
70644 CF-C25

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	77	0.01	%	10/07/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/07/1996	
Lead, ICP	6010	490	1.3	mg/kg d	10/07/1996	
WTPH-Diesel (S) PREP	WTPH-D	-	-		10/07/1996	
WTPH-Diesel (S)						
Diesel	WTPH-D	90.	19.	mg/kg d	10/07/1996	E, F, R

Sample Number Sample Description
70645 CF-C26

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	71	0.01	%	10/07/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/07/1996	
Lead, ICP	6010	560	1.4	mg/kg d	10/07/1996	

Sample Number Sample Description
70646 TB-21

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	74	0.01	%	10/07/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/07/1996	
Lead, ICP	6010	1,900	1.4	mg/kg d	10/07/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/09/1996
Job No.: 96.03102

Page: 3

Project Name: Winlock Wood Cleanup
Date Received: 10/04/1996

Sample Number Sample Description
70647 TB-21 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			10/08/1996	
TCLP EXTRACTION PREP	1311	-			10/07/1996	
TCLP - Lead, ICP	6010	2.6	0.05	mg/L	10/09/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

SURROGATE REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/09/1996
Job No.: 96.03102

Page: 4

Project Name: Winlock Wood Cleanup
Date Received: 10/04/1996

<u>SURROGATES</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Sample Number 70644	Sample Description CF-C25			
o-Terphenyl (Surr.)	WTPH-D	96	10/07/1996	

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/09/1996

NET Job Number: 96.03102

Contact: Tim Huntting
Project: Winlock Wood Cleanup

Analyte	CCV		Percent Recovery	Date Analyzed
	True Concentration	Concentration Found		
Lead, ICP	0.500	0.50	100.0	10/07/1996
TCLP - Lead, ICP	0.500	0.48	96.0	10/09/1996
WTPH-Diesel (S)				
Diesel	402.2	391.1	97.2	10/07/1996
WTPH-Diesel (S)				
Diesel	402.2	403.0	100.2	10/07/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/09/1996

NET Job Number: 96.03102

Contact: Tim Huntting
Project: Winlock Wood Cleanup

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
Lead, ICP	50.0	48	96.0	10/07/1996
TCLP - Lead, ICP	0.500	0.46	92.0	10/09/1996
WTPH-Diesel (S)				
Diesel	50.28	51	101.4	10/01/1996
WTPH-Diesel (S)				
Diesel	50.28	51	101.4	10/01/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/09/1996

NET Job Number: 96.03102

Contact: Tim Huntting
Project: Winlock Wood Cleanup

Analyte	Matrix Spike		Sample		Spike		Percent		MSD		Percent		MS/MSD RPD
	Result	Result	Amount	Units	Recovery	Result	Amount	Units	Recovery				
Lead, ICP	Dil.	200	50.0	mg/kg		Dil.	50.0	mg/kg					
TCLP - Lead, ICP	0.46	ND	0.500	mg/L	92.0	0.44	0.500	mg/L	88.0			4.4	

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/09/1996

NET Job Number: 96.03102

Contact: Tim Huntting
Project: Winlock Wood Cleanup
Location: Winlock Wood Cleanup

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	10/07/1996
TCCLP - Lead, ICP	ND	0.005	mg/L	10/09/1996
WTPH-Diesel (S)				
Diesel	ND	15	mg/Kg	10/01/1996
o-Terphenyl (Surr.)	92	-	%	10/01/1996
WTPH-Diesel (S)				
Diesel	ND	15	mg/Kg	10/02/1996
o-Terphenyl (Surr.)	104	-	%	10/02/1996
WTPH-Diesel (S)				
Diesel	ND	15	mg/Kg	10/07/1996
o-Terphenyl (Surr.)	87	-	%	10/07/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

QUALITY CONTROL REPORT DUPLICATES

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/09/1996

NET Job Number: 96.03102

Contact: Tim Huntting
Project: Winlock Wood Cleanup

Analyte	Original Analysis	Duplicate Analysis	Units	RPD	Date Analyzed	Flag
WTPH-Diesel (S) Diesel	90.	120	mg/kg	31.7	10/07/1996	E,F,R

NOTE: Duplicates may not be samples from this job.

RPD - Relative Percent Difference

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

3491

PROJECT FILE



NATIONAL
ENVIRONMENTAL
TESTING, INC.

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/09/1996
NET Account No.: 36025
NET Job Number: 96.03115

Project: Winlock Wood Products
Location: 281001.51

10/09/1996

Landau Associates, Inc.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
70681	CF-C27	SOIL	10/07/1996	10/07/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/09/1996
Job No.: 96.03115

Page: 2

Project Name: Winlock Wood Products
Date Received: 10/07/1996

Sample Number Sample Description
70681 CF-C27

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	79	0.01	%	10/08/1996	
WTPH-Diesel (S) PREP	WTPH-D	-	-		10/07/1996	
WTPH-Diesel (S)						
Diesel	WTPH-D	ND	19.	mg/kg d	10/08/1996	
WTPH-GAS (S)						
Dilution Factor		50	-		10/09/1996	
Gasoline	WTPH-G	250	4.	mg/kg d	10/09/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

SURROGATE REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/09/1996
Job No.: 96.03115

Page: 3

Project Name: Winlock Wood Products
Date Received: 10/07/1996

<u>SURROGATES</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
-------------------	----------------	----------------	----------------------	-------------

Sample Number	Sample Description
70681	CF-C27

o-Terphenyl (Surr.)	WTPH-D	107	‡	10/08/1996
aaa-Trifluorotoluene (Surr.)	WTPH-G	114	‡	10/09/1996
4-Bromofluorobenzene (Surr.)	WTPH-G	DIL	‡	10/09/1996

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/09/1996

NET Job Number: 96.03115

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	CCV	Concentration Found	Percent Recovery	Date Analyzed
	True Concentration			
WTPH-Diesel (S)				
Diesel	402.2	404.0	100.4	10/08/1996
WTPH-Diesel (S)				
Diesel	402.2	402.6	100.1	10/08/1996
WTPH-GAS (S)				
Gasoline	560	502	89.6	10/09/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/09/1996

NET Job Number: 96.03115

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
WTPH-Diesel (S)				
Diesel	50.28	51	101.4	10/01/1996
WTPH-Diesel (S)				
Diesel	50.28	51	101.4	10/01/1996
WTPH-GAS (S)				
Gasoline	493	560	113.6	10/09/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/09/1996

NET Job Number: 96.03115

Contact: Tim Huntting
Project: Winlock Wood Products
Location: 281001.51

Analyte	Blank Analysis	MDL	Units	Date Analyzed
WTPH-Diesel (S)				
Diesel	ND	15	mg/Kg	10/01/1996
o-Terphenyl (Surr.)	92	-	%	10/01/1996
WTPH-Diesel (S)				
Diesel	ND	15	mg/Kg	10/02/1996
o-Terphenyl (Surr.)	104	-	%	10/02/1996
WTPH-Diesel (S)				
Diesel	ND	15	mg/Kg	10/07/1996
o-Terphenyl (Surr.)	87	-	%	10/07/1996
WTPH-GAS (S)				
Gasoline	ND	10	mg/Kg	10/09/1996
aaa-Trifluorotoluene (Surr.)	121	-	%	10/09/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

QUALITY CONTROL REPORT DUPLICATES

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/09/1996

NET Job Number: 96.03115

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	Original Analysis	Duplicate Analysis	Units	RPD	Date Analyzed	Flag
WTPH-Diesel (S)						
Diesel	90.	120	mg/kg	31.7	10/07/1996	E, F, R
WTPH-GAS (S)						
Gasoline	ND	ND	mg/Kg		10/04/1996	
WTPH-GAS (S)						
Gasoline	ND	ND	mg/Kg		10/09/1996	

NOTE: Duplicates may not be samples from this job.

RPD - Relative Percent Difference

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.



NATIONAL
ENVIRONMENTAL
TESTING, INC.

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Mr. Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/10/1996
NET Account No.: 36025
NET Job Number: 96.03122

RECEIVED

OCT 16 1996

Project: Winlock Wood Products
Location: 281001.51

Landau Associates, Inc.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
70696	TB-22	SOIL	10/08/1996	10/08/1996
70697	TB-22-TCLP	SOIL	10/08/1996	10/08/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Mr. Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/10/1996
Job No.: 96.03122
Page: 2

Project Name: Winlock Wood Products
Date Received: 10/08/1996

Sample Number Sample Description
70696 TB-22

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	76	0.01	%	10/10/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/09/1996	
Lead, ICP	6010	2,200	1.3	mg/kg d	10/09/1996	

Sample Number Sample Description
70697 TB-22-TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			10/10/1996	
TCLP EXTRACTION PREP	1311	-			10/07/1996	
TCLP - Lead, ICP	6010	2.0	0.05	mg/L	10/10/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/10/1996

NET Job Number: 96.03122

Contact: Mr. Tim Huntting
Project: Winlock Wood Products

Analyte	CCV	Concentration Found	Percent Recovery	Date Analyzed
	True Concentration			
Lead, ICP	0.500	0.48	96.0	10/09/1996
TCLP - Lead, ICP	0.500	0.50	100.0	10/10/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/10/1996

NET Job Number: 96.03122

Contact: Mr. Tim Huntting
Project: Winlock Wood Products

Analyte	LCS		LCS % Recovery	Date Analyzed
	True Concentration	Concentration Found		
Lead, ICP	50.0	46	92.0	10/09/1996
TCLP - Lead, ICP	0.500	0.48	96.0	10/10/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/10/1996

NET Job Number: 96.03122

Contact: Mr. Tim Huntting
Project: Winlock Wood Products

Analyte	Matrix Spike Result	Sample Result	Spike Amount	Units	Percent Recovery	MSD Result	MSD Spike Amount	Units	Percent Recovery	MS/MSD RPD
Lead, ICP	72	22	50.0	mg/kg	100.0	65	50.0	mg/kg	86.0	15.0
TCLP - Lead, ICP	0.48	ND	0.500	mg/L	96.0	0.48	0.500	mg/L	96.0	0.0

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/10/1996

NET Job Number: 96.03122

Contact: Mr. Tim Huntting
Project: Winlock Wood Products
Location: 281001.51

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	10/09/1996
TCLP - Lead, ICP	ND	0.005	mg/L	10/10/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

N Manual integration performed on sample for quantification.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

U Sample not provided to laboratory in proper sampling container.

V Analysis was requested for volatiles analysis, sample contained headspace.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.



COMPANY CONCRETE CONCRETE
ADDRESS 1000 N. 10TH ST. MINNEAPOLIS
PHONE _____ FAX _____
PROJECT NAME/LOCATION CONCRETE CONCRETE
PROJECT NUMBER 1000
PROJECT MANAGER _____

REPORT TO: T.M. HULTINE
INVOICE TO: MANA ASSOC
P.O. NO. _____
NET QUOTE NO. _____

SAMPLED BY
1001 H. J. TAYLOR
(PRINT NAME)

(PRINT NAME)

SIGNATURE

SIGNATURE

and Type of Containers

ANALYSES

To assist us in selecting the proper method

Is this work being conducted for regulatory compliance monitoring? Yes _____ No _____

Is this work being conducted for regulatory enforcement action? Yes _____ No _____

Which regulations apply: RCRA _____ NPDES Wastewater _____
UST _____ Drinking Water _____
Other _____ None _____

COMMENTS

[illegible]

CONDITION OF SAMPLE: BOTTLES INTACT? YES /NO
FIELD FILTERED? YES / NO

COC SEALS PRESENT AND INTACT? YES / NO
VOLATILES FREE OF HEADSPACE? YES / NO

TEMPERATURE UPON RECEIPT: _____
Bottles supplied by NET? YES / NO

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA _____
I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS _____

DATE _____

RELINQUISHED BY:	DATE	TIME
<i>E. H. Miller</i>	1-15	1:10

RECEIVED BY:

RELINQUISHED BY:

DATE _____

TIME

RECEIVED FOR NET BY:

METHOD OF SHIPMENT

REMARKS:

Exhibits 1-10



NATIONAL PROJECT FILE
ENVIRONMENTAL
TESTING, INC.

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/10/1996
NET Account No.: 36025
NET Job Number: 96.03139

RECEIVED

Project: Winlock Wood Products/Winlock
Location: 281001.51

LANDAU ASSOCIATES, INC.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
70742	CF-C28	SOIL	10/09/1996	10/09/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/10/1996
Job No.: 96.03139

Page: 2

Project Name: Winlock Wood Products/Winlock
Date Received: 10/09/1996

Sample Number Sample Description
70742 CF-C28

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	82	0.01	%	10/10/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/10/1996	
Lead, ICP	6010	170	1.2	mg/kg d	10/10/1996	M,MR,P

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/10/1996

NET Job Number: 96.03139

Contact: Tim Huntting
Project: Winlock Wood Products/Winlock

Analyte	CCV		Percent Recovery	Date Analyzed
	True Concentration	Concentration Found		
Lead, ICP	0.500	0.500	100.0	10/10/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/10/1996

NET Job Number: 96.03139

Contact: Tim Huntting
Project: Winlock Wood Products/Winlock

	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
Analyte Lead, ICP	50.0	48	96.0	10/10/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT **MATRIX SPIKE/MATRIX SPIKE DUPLICATE**

Landau Associates, Inc.
 23107 100th Avenue W
 P.O. Box 1029
 Edmonds, WA 98020-9129

Date: 10/10/1996

NET Job Number: 96.03139

Contact: Tim Huntting
 Project: Winlock Wood Products/Winlock

Analyte	Matrix	Sample	Spike	Units	Percent	MSD	MSD	Units	Percent	MS/MSD	
	Spike					Result	Spike				
	Result	Result	Amount		Recovery		Amount		Recovery	RPD	
Lead, ICP	280	140	50.0	mg/kg	280.0	180	50.0	mg/kg	80.0	111.0	M, MR, P

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike
 MSD = Matrix Spike Duplicate
 RPD = Relative Percent Difference
 dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/10/1996

NET Job Number: 96.03139

Contact: Tim Huntting
Project: Winlock Wood Products/Winlock
Location: 281001.51

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	10/10/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

N Manual integration performed on sample for quantification.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

U Sample not provided to laboratory in proper sampling container.

V Analysis was requested for volatiles analysis, sample contained headspace.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.



NATIONAL PROJECT FILE
ENVIRONMENTAL
TESTING, INC.

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/16/1996
NET Account No.: 36025
NET Job Number: 96.03157

Project: Winlock Wood
Location: 281001.51

RECEIVED

DATE

LANDAU ASSOCIATES, INC.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
70787	TB-23	SOIL	10/09/1996	10/10/1996
70788	TB-23 TCLP	SOIL	10/09/1996	10/10/1996
70789	LF-C1	SOIL	10/10/1996	10/10/1996
70790	LF-C2	SOIL	10/10/1996	10/10/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/16/1996
Job No.: 96.03157

Page: 2

Project Name: Winlock Wood
Date Received: 10/10/1996

Sample Number Sample Description
70787 TB-23

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	79	0.01	%	10/11/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/11/1996	
Lead, ICP	6010	1,800	1.3	mg/kg d	10/14/1996	

Sample Number Sample Description
70788 TB-23 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			10/15/1996	
TCLP EXTRACTION PREP	1311	-			10/14/1996	
TCLP - Lead, ICP	6010	0.41	0.05	mg/L	10/15/1996	

Sample Number Sample Description
70789 LF-C1

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	68	0.01	%	10/11/1996	
TPH-G (S) PREP		-			10/11/1996	
WTPH-Diesel (S) PREP	WTPH-D	-	-		10/11/1996	
WTPH-Diesel (S)						
Diesel	WTPH-D	ND	22.	mg/kg d	10/11/1996	
WTPH-GAS (S)						
Dilution Factor		1	-		10/11/1996	
Gasoline	WTPH-G	60.	4.	mg/kg d	10/11/1996	

Sample Number Sample Description
70790 LF-C2

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	62	0.01	%	10/11/1996	
TPH-G (S) PREP		-			10/11/1996	
WTPH-Diesel (S) PREP	WTPH-D	-	-		10/11/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/16/1996
Job No.: 96.03157

Page: 3

Project Name: Winlock Wood
Date Received: 10/10/1996

Sample Number Sample Description
70790 LF-C2

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
WTPH-Diesel (S)						
Diesel	WTPH-D	53.	24.	mg/kg d	10/11/1996	F
WTPH-GAS (S)						
Dilution Factor		1	-		10/11/1996	
Gasoline	WTPH-G	35.	5.	mg/kg d	10/11/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

SURROGATE REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/16/1996
Job No.: 96.03157

Page: 4

Project Name: Winlock Wood
Date Received: 10/10/1996

<u>SURROGATES</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
-------------------	----------------	----------------	----------------------	-------------

Sample Number	Sample Description
70789	LF-C1

o-Terphenyl (Surr.)	WTPH-D	53	%	10/11/1996
aaa-Trifluorotoluene (Surr.)	WTPH-G	151	%	10/11/1996
4-Bromofluorobenzene (Surr.)	WTPH-G	86	%	10/11/1996

Sample Number	Sample Description
70790	LF-C2

o-Terphenyl (Surr.)	WTPH-D	109	%	10/11/1996
aaa-Trifluorotoluene (Surr.)	WTPH-G	116	%	10/11/1996
4-Bromofluorobenzene (Surr.)	WTPH-G	75	%	10/11/1996

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/16/1996

NET Job Number: 96.03157

Contact: Tim Huntting
Project: Winlock Wood

Analyte	CCV			
	True Concentration	Concentration Found	Percent Recovery	Date Analyzed
Lead, ICP	0.500	0.500	100.0	10/14/1996
Lead, ICP	0.500	0.480	96.0	10/14/1996
TCLP - Lead, ICP	0.500	0.52	104.0	10/15/1996
WTPH-Diesel (S)				
Diesel	402.2	404.8	100.6	10/11/1996
WTPH-Diesel (S)				
Diesel	402.2	409.2	101.7	10/11/1996
WTPH-GAS (S)				
Gasoline	21.5	21.35	99.30	02/15/1993
aaa-Trifluorotoluene (Surr.)	100	108	108.00	02/15/1993

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/16/1996

NET Job Number: 96.03157

Contact: Tim Huntting
Project: Winlock Wood

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
Lead, ICP	50.0	47.0	94.0	10/14/1996
Lead, ICP	50.0	47.0	94.0	10/14/1996
TCLP - Lead, ICP	0.500	0.48	96.0	10/15/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/16/1996

NET Job Number: 96.03157

Contact: Tim Huntting
Project: Winlock Wood

Analyte	Matrix	Sample	Spike		Percent	MSD	MSD		Percent	MS/MSD
	Spike	Result	Amount	Units	Recovery	Result	Spike	Units	Recovery	RPD
Lead, ICP	DIL	1,800	63.	mg/kg		DIL	63.	mg/kg		
TCLP - Lead, ICP	Dil.	11	0.500	mg/L		Dil.	0.500	mg/L		Y
WTPH-GAS (S)										
Gasoline	52.6	<10	53.75	mg/Kg	97.90	52	53.75	mg/Kg	96.70	1.20
WTPH-GAS (S)										
Gasoline	41.9	<10	53.75	mg/Kg	78.00	40.4	53.75	mg/Kg	75.20	3.70

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil.= Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/16/1996

NET Job Number: 96.03157

Contact: Tim Huntting
Project: Winlock Wood
Location: 281001.51

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	10/14/1996
Lead, ICP	ND	1.0	mg/kg	10/14/1996
TCLP EXTRACTION PREP	-			10/14/1996
TCLP - Lead, ICP	ND	0.005	mg/L	10/15/1996
WTPH-Diesel (S)				
Diesel	ND	15	mg/Kg	10/11/1996
o-Terphenyl (Surr.)	99	-	µ	10/11/1996
WTPH-GAS (S)				
Gasoline	<10	10	mg/Kg	02/15/1993
4-Bromofluorobenzene (Surr.)	99	-	µ	02/15/1993
WTPH-GAS (S)				
Gasoline	ND	10	mg/Kg	10/11/1996
aaa-Trifluorotoluene (Surr.)	98.5	-	µ	10/11/1996
WTPH-GAS (S)				
Gasoline	ND	10	mg/Kg	10/15/1996
aaa-Trifluorotoluene (Surr.)	74	-	µ	10/15/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

QUALITY CONTROL REPORT DUPLICATES

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/16/1996

NET Job Number: 96.03157

Contact: Tim Huntting
Project: Winlock Wood

Analyte	Original Analysis	Duplicate Analysis	Units	RPD	Date Analyzed	Flag
WTPH-Diesel (S)						
Diesel	53.	52.	mg/kg	3.1	10/11/1996	F
WTPH-GAS (S)						
Gasoline	ND	ND	mg/Kg		10/15/1996	
WTPH-GAS (S)						
Gasoline	60.	72.	mg/kg	17.8	10/11/1996	

NOTE: Duplicates may not be samples from this job.

RPD - Relative Percent Difference

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

N Manual integration performed on sample for quantification.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

U Sample not provided to laboratory in proper sampling container.

V Analysis was requested for volatiles analysis, sample contained headspace.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.



CHAIN OF CUSTODY RECORD

COMPANY LIMBORG ASSOCIATES
ADDRESS 9032 107th Ave NE
PHONE _____ FAX _____
PROJECT NAME/LOCATION WILSON RD. & 107th
PROJECT NUMBER 70100151
PROJECT MANAGER _____



REPORT TO: 3643-7855-3643

INVOICE TO: NOTICE PALATKA

P.O. NO. _____

NET QUOTE NO. _____

SAMPLED BY

(PRINT NAME)

(PRINT NAME)

SIGNATURE

SIGNATURE

ANALYSES

To assist us in selecting the proper method

Is this work being conducted for regulatory compliance monitoring? Yes _____ No _____

Is this work being conducted for regulatory enforcement action? Yes _____ No _____

Which regulations apply: RCRA _____ NPDES Wastewater _____
UST _____ Drinking Water _____
Other _____ None _____

COMMENTS

[illegible]

CONDITION OF SAMPLE: BOTTLES INTACT? YES / NO
FIELD FILTERED? YES / NO

COC SEALS PRESENT AND INTACT? YES / NO
VOLATILES FREE OF HEADSPACE? YES / NO

TEMPERATURE UPON RECEIPT: _____
Bottles supplied by NET? YES / NO

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA _____
I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS _____

DATE _____

RELINQUISHED BY:

DATE _____

TIME

RECEIVED BY:

RELINQUISHED BY:

DATE .

	TIME
1	08:00
2	09:00
3	10:00
4	11:00
5	12:00
6	13:00
7	14:00
8	15:00
9	16:00
10	17:00
11	18:00
12	19:00
13	20:00
14	21:00
15	22:00
16	23:00
17	00:00
18	01:00
19	02:00
20	03:00
21	04:00
22	05:00
23	06:00
24	07:00

RECEIVED FOR NET BY

METHOD OF SHIPMENT

REMARKS:

EXBOUTURE 100262



NATIONAL
ENVIRONMENTAL
TESTING, INC.

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/15/1996
NET Account No.: 36025
NET Job Number: 96.03180

RECEIVED

Project: Winlock Wood
Location: Winlock Wood

OCT 24 1996

LANDAU ASSOCIATES, INC.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
70852	OS-4	SOIL	10/11/1996	10/11/1996
70853	CF-C29	SOIL	10/11/1996	10/11/1996
70854	CF-C30	SOIL	10/11/1996	10/11/1996
70855	CF-C31	SOIL	10/11/1996	10/11/1996
70856	OS-4 TCLP	SOIL	10/11/1996	10/11/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/15/1996
Job No.: 96.03180

Page: 2

Project Name: Winlock Wood
Date Received: 10/11/1996

Sample Number Sample Description
70852 OS-4

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	81	0.01	%	10/14/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/14/1996	
Lead, ICP	6010	1,600	1.2	mg/kg d	10/14/1996	

Sample Number Sample Description
70853 CF-C29

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	79	0.01	%	10/14/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/14/1996	
Lead, ICP	6010	630	1.3	mg/kg d	10/14/1996	

Sample Number Sample Description
70854 CF-C30

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	79	0.01	%	10/14/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/14/1996	
Lead, ICP	6010	450	1.0	mg/kg d	10/14/1996	

Sample Number Sample Description
70855 CF-C31

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	73	0.01	%	10/14/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/14/1996	
Lead, ICP	6010	48.	1.4	mg/kg d	10/14/1996	

Sample Number Sample Description
70856 OS-4 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
-------------------	----------------	----------------	---------------------	--------------	----------------------	-------------

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/15/1996
Job No.: 96.03180

Page: 3

Project Name: Winlock Wood
Date Received: 10/11/1996

Sample Number Sample Description
70856 OS-4 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			10/15/1996	
TCLP EXTRACTION PREP	1311	-			10/14/1996	
TCLP - Lead, ICP	6010	2.1	0.05	mg/L	10/15/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/15/1996

NET Job Number: 96.03180

Contact: Tim Huntting
Project: Winlock Wood

Analyte	CCV	Concentration Found	Percent Recovery	Date Analyzed
	True Concentration			
Lead, ICP	0.500	0.500	100.0	10/14/1996
Lead, ICP	0.500	0.480	96.0	10/14/1996
TCLP - Lead, ICP	0.500	0.52	104.0	10/15/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/15/1996

NET Job Number: 96.03180

Contact: Tim Huntting
Project: Winlock Wood

Analyte	LCS	Concentration Found	LCS	Date Analyzed
	True Concentration		% Recovery	
Lead, ICP	50.0	45.0	90.0	10/14/1996
Lead, ICP	50.0	45.0	90.0	10/14/1996
TCLP - Lead, ICP	0.500	0.48	96.0	10/15/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/15/1996

NET Job Number: 96.03180

Contact: Tim Huntting
Project: Winlock Wood

Analyte	Matrix	Sample	Spike	Percent	MSD	Spike	Percent	MS/MSD
	Spike		Amount		Result	Amount		
Lead, ICP	DIL	450	50.0	mg/kg	DIL	50.0	mg/kg	
TCLP - Lead, ICP	Dil.	11	0.500	mg/L	Dil.	0.500	mg/L	

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/15/1996

NET Job Number: 96.03180

Contact: Tim Huntting
Project: Winlock Wood
Location: Winlock Wood

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	10/14/1996
Lead, ICP	ND	1.0	mg/kg	10/14/1996
TCLP EXTRACTION PREP	-			10/14/1996
TCLP - Lead, ICP	ND	0.005	mg/L	10/15/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

N Manual integration performed on sample for quantification.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

U Sample not provided to laboratory in proper sampling container.

V Analysis was requested for volatiles analysis, sample contained headspace.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

ENVIRONMENTAL
TESTING, INC.

CHAIN OF CUSTODY RECORD

COMPANY LANDAU ASSOC.
ADDRESS _____
PHONE _____ FAX _____
PROJECT NAME/LOCATION Winnick Wood
PROJECT NUMBER 281001.51
PROJECT MANAGER _____

12

REPORT TO: 360-745-3043


INVOICE TO: _____

P.O. NO. _____

NET QUOTE NO. _____

SAMPLED BY
TIMOTHY D HUNTINE
(PRINT NAME)

(PRINT NAME)


SIGNATURE

SIGNATURE

ANALYSES

To assist us in selecting the proper method

Is this work being conducted for regulatory compliance monitoring? Yes _____ No _____

Is this work being conducted for regulatory enforcement action? Yes _____ No _____

Which regulations apply: RCRA _____ NPDES Wastewater _____
UST _____ Drinking Water _____
Other _____ None _____

COMMENTS

[illegible]

CONDITION OF SAMPLE: BOTTLES INTACT? YES / NO
FIELD FILTERED? YES / NO

COC SEALS PRESENT AND INTACT? YES / NO
VOLATILES FREE OF HEADSPACE? YES / NO

TEMPERATURE UPON RECEIPT: _____
Bottles supplied by NET? YES / NO

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA _____
I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS _____

DATE _____

RELINQUISHED BY:

DATE	TIME
2/11/76	13:40

RECEIVED BY:

RELINQUISHED BY:

DATE	TIME
10/11/91	17:41

RECEIVED FOR NET BY

METHOD OF SHIPMENT

REMARKS:

EXHIBITIVE CONTINUED



NATIONAL PROJECT FILE
ENVIRONMENTAL
TESTING, INC.

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

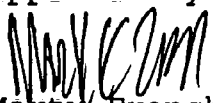
Date: 10/16/1996
NET Account No.: 36025
NET Job Number: 96.03200

Project: Winlock Wood Products
Location: 281001.51 -

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
70915	CF-C32	SOIL	10/14/1996	10/14/1996
70916	CF-C33	SOIL	10/14/1996	10/14/1996
70917	CP-C34	SOIL	10/14/1996	10/14/1996

Approved by:


Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/16/1996
Job No.: 96.03200

Page: 2

Project Name: Winlock Wood Products
Date Received: 10/14/1996

Sample Number Sample Description
70915 CF-C32

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	74	0.01	%	10/16/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/15/1996	
Lead, ICP	6010	130	1.4	mg/kg d	10/15/1996	

Sample Number Sample Description
70916 CF-C33

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	68	0.01	%	10/16/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/15/1996	
Lead, ICP	6010	3,200	1.5	mg/kg d	10/15/1996	

Sample Number Sample Description
70917 CF-C34

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	68	0.01	%	10/16/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/15/1996	
Lead, ICP	6010	3,100	1.5	mg/kg d	10/15/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/16/1996

NET Job Number: 96.03200

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	CCV	Concentration	Percent	Date
	True Concentration	Found	Recovery	Analyzed
Lead, ICP	0.500	0.52	104.0	10/15/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/16/1996

NET Job Number: 96.03200

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
Lead, ICP	50.0	49	98.0	10/15/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/16/1996

NET Job Number: 96.03200

Contact: Tim Huntting
Project: Winlock Wood Products

	Matrix Spike Result	Sample Result	Spike Amount	Units	Percent Recovery	MSD Result	MSD Spike Amount	Units	Percent Recovery	MS/MSD RPD
alyte										
Lead, ICP	Dil.	210	50.0	mg/kg		Dil.	50.0	mg/kg		

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/16/1996

NET Job Number: 96.03200

Contact: Tim Huntting
Project: Winlock Wood Products
Location: 281001.51

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	10/15/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventionals/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

N Manual integration performed on sample for quantification.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

U Sample not provided to laboratory in proper sampling container.

V Analysis was requested for volatiles analysis, sample contained headspace.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.




COMPANY LANDAU ASSOCIATES INC
ADDRESS P.O. Box 1039 Bismarck ND 58103
PHONE 701-778-0907 FAX 701-778-6401
PROJECT NAME/LOCATION WINDY HILLS PROJECT
PROJECT NUMBER 25100151
PROJECT MANAGER WILLIAM B. GUNZ

REPORT TO: 360-785-3643

INVOICE TO: ACCTS PAYABLE

P.O. NO. _____

NET QUOTE NO. _____


SIGNATURE

SIGNATURE _____

[illegible]

Which regulations apply: RCRA X NPDES Wastewater
UST Drinking Water
Other None

COMMENTS

1-DAY TAT
1-DAY TAT
1-DAY TAT

TEMPERATURE UPON RECEIPT: _____
Bottles supplied by NET? YES / NO

DATE _____

RELINQUISHED BY: <i>[Signature]</i>	DATE <i>10/14/96</i>	TIME <i>13:20</i>	RECEIVED BY:	RELINQUISHED BY:	DATE	TIME	RECEIVED FOR NET BY:
METHOD OF SHIPMENT <i>Express Courier</i>			REMARKS:				



**NATIONAL
ENVIRONMENTAL
TESTING, INC.**

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/15/1996
NET Account No.: 36025
NET Job Number: 96.03180

Project: Winlock Wood
Location: Winlock Wood

LANDAU ASSOCIATES, INC.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
70852	OS-4	SOIL	10/11/1996	10/11/1996
70853	CF-C29	SOIL	10/11/1996	10/11/1996
70854	CF-C30	SOIL	10/11/1996	10/11/1996
70855	CF-C31	SOIL	10/11/1996	10/11/1996
70856	OS-4 TCLP	SOIL	10/11/1996	10/11/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/15/1996
Job No.: 96.03180

Page: 2

Project Name: Winlock Wood
Date Received: 10/11/1996

Sample Number Sample Description
70852 OS-4

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	81	0.01	%	10/14/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/14/1996	
Lead, ICP	6010	1,600	1.2	mg/kg d	10/14/1996	

Sample Number Sample Description
70853 CF-C29

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	79	0.01	%	10/14/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/14/1996	
Lead, ICP	6010	630	1.3	mg/kg d	10/14/1996	

Sample Number Sample Description
70854 CF-C30

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	79	0.01	%	10/14/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/14/1996	
Lead, ICP	6010	450	1.0	mg/kg d	10/14/1996	

Sample Number Sample Description
70855 CF-C31

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	73	0.01	%	10/14/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/14/1996	
Lead, ICP	6010	48.	1.4	mg/kg d	10/14/1996	

Sample Number Sample Description
70856 OS-4 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
-------------------	----------------	----------------	---------------------	--------------	----------------------	-------------

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/15/1996
Job No.: 96.03180

Page: 3

Project Name: Winlock Wood
Date Received: 10/11/1996

Sample Number Sample Description
70856 OS-4 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			10/15/1996	
TCLP EXTRACTION PREP	1311	-			10/14/1996	
TCLP - Lead, ICP	6010	2.1	0.05	mg/L	10/15/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/15/1996

NET Job Number: 96.03180

Contact: Tim Huntting
Project: Winlock Wood

Analyte	CCV		Percent Recovery	Date Analyzed
	True Concentration	Concentration Found		
Lead, ICP	0.500	0.500	100.0	10/14/1996
Lead, ICP	0.500	0.480	96.0	10/14/1996
TCLP - Lead, ICP	0.500	0.52	104.0	10/15/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/15/1996

NET Job Number: 96.03180

Contact: Tim Huntting
Project: Winlock Wood

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
Lead, ICP	50.0	45.0	90.0	10/14/1996
Lead, ICP	50.0	45.0	90.0	10/14/1996
TCLP - Lead, ICP	0.500	0.48	96.0	10/15/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/15/1996

NET Job Number: 96.03180

Contact: Tim Huntting
Project: Winlock Wood

Analyte	Matrix	Sample Result	Spike Amount	Units	Percent Recovery	MSD	Spike Amount	Units	Percent Recovery	MS/MSD RPD
	Spike Result					MSD Result				
Lead, ICP	DIL	450	50.0	mg/kg		DIL	50.0	mg/kg		
TCLP - Lead, ICP	Dil.	11	0.500	mg/L		Dil.	0.500	mg/L		Y

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/15/1996

NET Job Number: 96.03180

Contact: Tim Huntting
Project: Winlock Wood
Location: Winlock Wood

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	10/14/1996
Lead, ICP	ND	1.0	mg/kg	10/14/1996
TCLP EXTRACTION PREP	-			10/14/1996
TCLP - Lead, ICP	ND	0.005	mg/L	10/15/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

N Manual integration performed on sample for quantification.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

U Sample not provided to laboratory in proper sampling container.

V Analysis was requested for volatiles analysis, sample contained headspace.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.



COMPANY

LEWIS & CLARK

ADDRESS

PHONE

FAX

PROJECT NAME/LOCATION Wink Wd.

PROJECT NUMBER 281001.5

PROJECT MANAGER

۱۲۸

REPORT TO: 360-785-3043

INVOICE TO:

P.O. NO.

NET QUOTE NO.

SAMPLED BY

(PRINT NAME)

(PRINT NAME)

SIGNATURE

SIGNATURE

and Type of Containers

ANALYSES

To assist us in selecting the proper method

Is this work being conducted for regulatory compliance monitoring?

Yes _____ No _____

Is this work being conducted for regulatory enforcement action?

Yes _____ No _____

Which regulations apply: RCRA NPDES Wastewater

UST _____ Drinking Water

Other _____ None _____

COMMENTS

[illegible]

CONDITION OF SAMPLE: BOTTLES INTACT? YES / NO
FIELD FILTERED? YES / NO

COC SEALS PRESENT AND INTACT? YES / NO
VOLATILES FREE OF HEADSPACE? YES / NO

TEMPERATURE UPON RECEIPT: _____
Bottles supplied by NET? YES / NO

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA

I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS

DATE _____

RELINQUISHED BY:

DATE _____

TIME

RECEIVED BY:

RELINQUISHED BY:

DATE _____

TIME

RECEIVED FOR NET BY:

METHOD OF SHIPMENT

REMARKS:



NATIONAL PROJECT FILE
ENVIRONMENTAL
TESTING, INC.

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/18/1996
NET Account No.: 36025
NET Job Number: 96.03220

Project: Winlock Wood Products
Location: 281001.51

RECEIVED

LANDAU ASSOCIATES, INC.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
70952	TB-24	SOIL	10/15/1996	10/15/1996
70953	TB-24 TCLP	SOIL	10/15/1996	10/15/1996

Approved by

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/18/1996
Job No.: 96.03220

Page: 2

Project Name: Winlock Wood Products
Date Received: 10/15/1996

Sample Number Sample Description
70952 TB-24

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	79	0.01		10/18/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/16/1996	
Lead, ICP	6010	3,400	1.3	mg/kg d	10/16/1996	

Sample Number Sample Description
70953 TB-24 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			10/17/1996	
TCLP EXTRACTION PREP	1311	-			10/16/1996	
TCLP - Lead, ICP	6010	2.4	0.05	mg/L	10/18/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/18/1996

NET Job Number: 96.03220

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	CCV	Concentration Found	Percent Recovery	Date Analyzed
	True Concentration			
Lead, ICP	0.500	0.50	100.0	10/16/1996
TCLP - Lead, ICP	0.500	0.510	102.0	10/18/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/18/1996

NET Job Number: 96.03220

Contact: Tim Huntting
Project: Winlock Wood Products

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
Lead, ICP	50.0	48	96.0	10/16/1996
TCLP - Lead, ICP	0.500	0.490	98.0	10/18/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/18/1996

NET Job Number: 96.03220

Contact: Tim Huntting
Project: Winlock Wood Products

	Matrix Spike Result	Sample Result	Spike Amount	Units	Percent Recovery	MSD Result	MSD Spike Amount	Units	Percent Recovery	MS/MSD RPD
lyte										
Lead, ICP	Dil.	2700	50.0	mg/kg		Dil.	50.0	mg/kg		
TCLP - Lead, ICP	0.460	ND	0.500	mg/L	92.0	0.460	0.500	mg/L	92.0	0.0

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil.= Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/18/1996

NET Job Number: 96.03220

Contact: Tim Huntting
Project: Winlock Wood Products
Location: 281001.51

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/kg	10/16/1996
TCLP - Lead, ICP	ND	0.005	mg/L	10/18/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

N Manual integration performed on sample for quantification.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

U Sample not provided to laboratory in proper sampling container.

V Analysis was requested for volatiles analysis, sample contained headspace.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.



COMPANY LINCOLN ASSOCIATES, INC.
ADDRESS P.O. Box 1039, Springfield, MA
PHONE 267 728 0907 FAX 267 728 6449
PROJECT NAME/LOCATION WINDYBROOK WATER PROJECTS
PROJECT NUMBER 381001.51
PROJECT MANAGER WILLIAM D. EVANS

REPORT TO: 360 785-3643

INVOICE TO: ACCOUNTS PAYABLE

P.O. NO. _____

NET QUOTE NO. _____

(PRINT NAME)

(PRINT NAME)

SIGNATURE

SIGNATURE

and Type of Containers

ANALYSES

To assist us in selecting the proper method

Is this work being conducted for regulatory compliance monitoring? Yes _____ No _____

Is this work being conducted for regulatory enforcement action? Yes X No

Which regulations apply: RCRA ☒ NPDES Wastewater ☐
UST ☐ Drinking Water ☐
Other ☐ None ☐

COMMENTS

[illegible]

CONDITION OF SAMPLE: BOTTLES INTACT? YES / NO
FIELD FILTERED? YES / NO

COC SEALS PRESENT AND INTACT? YES / NO
VOLATILES FREE OF HEADSPACE? YES / NO

TEMPERATURE UPON RECEIPT: _____
Bottles supplied by NET? YES / NO

SAMPLE REMAINDER DISPOSAL: RETURN SAMPLE REMAINDER TO CLIENT VIA _____
I REQUEST NET TO DISPOSE OF ALL SAMPLE REMAINDERS _____

DATE _____

RELINQUISHED BY:

DATE _____

TIME

RECEIVED BY:

RELINQUISHED BY.

DATE

TIME

RECEIVED FOR NET BY:

METHOD OF SHIPMENT

REMARKS:



NATIONAL ENVIRONMENTAL TESTING, INC.

PROJECT FILE

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/21/1996
NET Account No.: 36025
NET Job Number: 96.03243

Project: Winlock Wood Cleanup
Location: 281001.51

RECEIVED

301 11 1996

LANDAU ASSOCIATES, INC.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
70998	TB-25	SOIL	10/15/1996	10/16/1996
70999	TB-25 TCLP	SOIL	10/15/1996	10/16/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/21/1996
Job No.: 96.03243

Page: 2

Project Name: Winlock Wood Cleanup
Date Received: 10/16/1996

Sample Number Sample Description
70998 TB-25

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	77	0.01		10/18/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/17/1996	
Lead, ICP	6010	1,400	1.3	mg/kg d	10/18/1996	

Sample Number Sample Description
70999 TB-25 TCLP

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
ICP/AA Digestion - Water	ICP	-			10/18/1996	
TCLP EXTRACTION PREP	1311	-			10/17/1996	
TCLP - Lead, ICP	6010	0.77	0.05	mg/L	10/18/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/21/1996

NET Job Number: 96.03243

Contact: Tim Huntting
Project: Winlock Wood Cleanup

Analyte	CCV		Percent Recovery	Date Analyzed
	True Concentration	Concentration Found		
Lead, ICP	0.500	0.510	102.0	10/18/1996
TCLP - Lead, ICP	0.500	0.510	102.0	10/18/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/21/1996

NET Job Number: 96.03243

Contact: Tim Huntting
Project: Winlock Wood Cleanup

Analyte	LCS	Concentration Found	LCS	Date Analyzed
	True Concentration		% Recovery	
Lead, ICP	50.0	48.0	96.0	10/18/1996
TCLP - Lead, ICP	0.500	0.49	98.0	10/18/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/21/1996

NET Job Number: 96.03243

Contact: Tim Huntting
Project: Winlock Wood Cleanup

	Matrix	Sample	Spike	Units	Percent	MSD	MSD	Spike	Percent	MS/MSD
	Spike					Result				
alyte	Result	Result	Amount		Recovery		Amount	Units	Recovery	RPD
Lead, ICP	49.	2.6	54.	mg/kg	85.2	50.	54.	mg/kg	87.2	2.3
TCLP - Lead, ICP	0.50	ND	0.500	mg/L	100.0	0.49	0.500	mg/L	98.0	1.9

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/21/1996

NET Job Number: 96.03243

Contact: Tim Huntting
Project: Winlock Wood Cleanup
Location: 281001.51

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/Kg	10/18/1996
TCLP - Lead, ICP	ND	0.005	mg/L	10/18/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

Bi This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

N Manual integration performed on sample for quantification.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

U Sample not provided to laboratory in proper sampling container.

V Analysis was requested for volatiles analysis, sample contained headspace.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

3/90



**NATIONAL
ENVIRONMENTAL
TESTING, INC.**

PROJECT FILE

Portland Division
17400 SW Upper Boones Ferry Rd.
Suite #260
Portland, OR 97224
Tel: (503) 624-5449
Fax: (503) 639-6889

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/21/1996
NET Account No.: 36025
NET Job Number: 96.03266

Project: Winlock Wood Cleanup
Location: 281001.51

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
71039	CF-C35	SOIL	10/17/1996	10/17/1996
71040	CF-C36	SOIL	10/17/1996	10/17/1996

Approved by:

Marty French
NET, INC. Division Manager

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

10/21/1996
Job No.: 96.03266

Page: 2

Project Name: Winlock Wood Cleanup
Date Received: 10/17/1996

Sample Number Sample Description
71039 CF-C35

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	75	0.01	†	10/18/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/18/1996	
Lead, ICP	6010	45.	1.3	mg/kg d	10/18/1996	

Sample Number Sample Description
71040 CF-C36

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	75	0.01	†	10/18/1996	
ICP/AA Digestion - Soil	ICP	-	-		10/18/1996	
Lead, ICP	6010	3,200	1.3	mg/kg d	10/18/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/21/1996

NET Job Number: 96.03266

Contact: Tim Huntting
Project: Winlock Wood Cleanup

Analyte	CCV			
	True Concentration	Concentration Found	Percent Recovery	Date Analyzed
Lead, ICP	0.500	0.510	102.0	10/18/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/21/1996

NET Job Number: 96.03266

Contact: Tim Huntting
Project: Winlock Wood Cleanup

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
Lead, ICP	50.0	50	100.0	10/18/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/21/1996

NET Job Number: 96.03266

Contact: Tim Huntting
Project: Winlock Wood Cleanup

	Matrix Spike Result	Sample Result	Spike Amount	Units	Percent Recovery	MSD Result	MSD Spike Amount	Units	Percent Recovery	MS/MSD RPD
alyte										
Lead, ICP	DIL	780	50.0	mg/kg		DIL	50.0	mg/kg		

NOTE: Matrix Spike Samples may not be samples from this job.

MS = Matrix Spike

MSD = Matrix Spike Duplicate

RPD = Relative Percent Difference

dil. = Diluted Out

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 10/21/1996

NET Job Number: 96.03266

Contact: Tim Huntting
Project: Winlock Wood Cleanup
Location: 281001.51

Analyte	Blank Analysis	MDL	Units	Date Analyzed
Lead, ICP	ND	1.0	mg/Kg	10/18/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

N Manual integration performed on sample for quantification.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

U Sample not provided to laboratory in proper sampling container.

V Analysis was requested for volatiles analysis, sample contained headspace.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.

3/90

American Environmental Network, Inc.

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 11/06/1996
AEN Account No.: 36025
AEN Job Number: 96.03365

Project: Winlock Wood Cleanup
Location: 281001.51


COPY **RECEIVED**
NOV 25 1996

LANDAU ASSOCIATES, INC.

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Should you have questions regarding procedures or results, please feel welcome to contact Client Services.

Sample Number	Sample Description	Matrix Type	Date Taken	Date Received
71411	LF-C3	SOIL	10/23/1996	10/24/1996
71412	LF-C4	SOIL	10/23/1996	10/24/1996

Approved by:


Marty French
AEN, INC.

ANALYTICAL REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

11/06/1996
Job No.: 96.03365

Page: 2

Project Name: Winlock Wood Cleanup
Date Received: 10/24/1996

Sample Number Sample Description
71411 LF-C3

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	81	0.01	%	10/28/1996	
TPH-G (S) PREP		-			10/24/1996	
WTPH-Diesel (S) PREP	WTPH-D	-	-		10/25/1996	
WTPH-Diesel (S)						
Diesel	WTPH-D	22.	18.	mg/kg d	10/25/1996	E
WTPH-GAS (S)						
Dilution Factor		20	-		11/05/1996	
Gasoline	WTPH-G	940	74.	mg/kg d	11/05/1996	

Sample Number Sample Description
71412 LF-C4

<u>PARAMETERS</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>REPORT LIMIT</u>	<u>UNITS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
Solids, Total	160.3	78	0.01	%	10/28/1996	
TPH-G (S) PREP		-			10/24/1996	
WTPH-Diesel (S) PREP	WTPH-D	-	-		10/25/1996	
WTPH-Diesel (S)						
Diesel	WTPH-D	26.	19.	mg/kg d	10/25/1996	E
WTPH-GAS (S)						
Dilution Factor		20	-		11/05/1996	
Gasoline	WTPH-G	950	77.	mg/kg d	11/05/1996	

A sample result of ND indicates the parameter was Not Detected at the reporting limit.

SURROGATE REPORT

Tim Huntting
Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

11/06/1996
Job No.: 96.03365
Page: 3

Project Name: Winlock Wood Cleanup
Date Received: 10/24/1996

<u>SURROGATES</u>	<u>METHODS</u>	<u>RESULTS</u>	<u>DATE ANALYZED</u>	<u>FLAG</u>
-------------------	----------------	----------------	----------------------	-------------

Sample Number	Sample Description
71411	LF-C3

o-Terphenyl (Surr.)	WTPH-D	72	‡	10/25/1996
aaa-Trifluorotoluene (Surr.)	WTPH-G	90	‡	11/05/1996
4-Bromofluorobenzene (Surr.)	WTPH-G	DIL	‡	11/05/1996

Sample Number	Sample Description
71412	LF-C4

o-Terphenyl (Surr.)	WTPH-D	84	‡	10/25/1996
aaa-Trifluorotoluene (Surr.)	WTPH-G	91	‡	11/05/1996
4-Bromofluorobenzene (Surr.)	WTPH-G	DIL	‡	11/05/1996

QUALITY CONTROL REPORT CONTINUING CALIBRATION VERIFICATION

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 11/06/1996

Job Number: 96.03365

Contact: Tim Huntting
Project: Winlock Wood Cleanup

Analyte	CCV			
	True Concentration	Concentration Found	Percent Recovery	Date Analyzed
WTPH-Diesel (S)				
Diesel	402.9	409.0	101.5	10/25/1996
WTPH-Diesel (S)				
Diesel	402.9	402.6	99.9	10/25/1996
WTPH-GAS (S)				
Gasoline	14.0	13.2	94.3	11/05/1996
WTPH-GAS (S)				
Gasoline	14.0	14.4	102.9	11/05/1996

CCV - Continuing Calibration Verification

Note: Recovery limits for 8240, 8260, 8270, 8010, 8020, 624, 625 specified in method.
Gasoline, Diesel, 418.1, 418.1M limits 80-120%. Metals recovery limits 80-120%.

QUALITY CONTROL REPORT LABORATORY CONTROL STANDARD

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 11/06/1996

Job Number: 96.03365

Contact: Tim Huntting
Project: Winlock Wood Cleanup

Analyte	LCS True Concentration	Concentration Found	LCS % Recovery	Date Analyzed
WTPH-Diesel (S) Diesel	50	52	104.0	10/24/1996

LCS - Laboratory Control Standard

Note: Recovery limits for fuels 80-120%. 8010, 8020, 8240, 8260, 8270, 624, 625 specified in method.
Recovery limits for metals analyses 80-120%. 418.1 limits are 90-140%.

QUALITY CONTROL REPORT BLANKS

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 11/06/1996

Job Number: 96.03365

Contact: Tim Huntting
Project: Winlock Wood Cleanup
Location: 281001.51

Analyte	Blank Analysis	MDL	Units	Date Analyzed
WTPH-Diesel (S)				
Diesel	ND	15	mg/Kg	10/24/1996
o-Terphenyl (Surr.)	74	-	%	10/24/1996
WTPH-Diesel (S)				
Diesel	ND	15	mg/Kg	10/25/1996
o-Terphenyl (Surr.)	75	-	%	10/25/1996
WTPH-Diesel (S)				
Diesel	ND	15	mg/Kg	10/30/1996
o-Terphenyl (Surr.)	76	-	%	10/30/1996
WTPH-GAS (S)				
Gasoline	ND	10	mg/Kg	10/21/1996
aaa-Trifluorotoluene (Surr.)	106	-	%	10/21/1996
WTPH-GAS (S)				
Gasoline	ND	10	mg/Kg	10/22/1996
aaa-Trifluorotoluene (Surr.)	64	-	%	10/22/1996
WTPH-GAS (S)				
Gasoline	ND	10	mg/Kg	11/05/1996
aaa-Trifluorotoluene (Surr.)	92	-	%	11/05/1996

Advisory Control Limits for Blanks:

Metals/Wet Chemistry/ Conventional/GC - all compounds should be less than the Reporting Limit.

GC/MS - Semi-Volatiles - all compounds should be less than the Reporting Limit except for phthalates which should be less than 5 times the reporting limit.

QUALITY CONTROL REPORT DUPLICATES

Landau Associates, Inc.
23107 100th Avenue W
P.O. Box 1029
Edmonds, WA 98020-9129

Date: 11/06/1996

Job Number: 96.03365

Contact: Tim Huntting
Project: Winlock Wood Cleanup

Analyte	Original Analysis	Duplicate Analysis	Units	RPD	Date Analyzed	Flag
WTPH-Diesel (S)						
Diesel	ND	ND	mg/kg		10/24/1996	
WTPH-Diesel (S)						
Diesel	26.	22.	mg/kg	16.2	10/25/1996	E
WTPH-Diesel (S)						
Diesel	110	110	mg/kg	61.3 0.0 SP.	10/30/1996	F,R
WTPH-GAS (S)						
Gasoline	ND	ND	mg/Kg		10/21/1996	
WTPH-GAS (S)						
Gasoline	ND	ND	mg/Kg		10/30/1996	
WTPH-GAS (S)						
Gasoline	940	830	mg/kg	12.6	11/05/1996	

NOTE: Duplicates may not be samples from this job.

RPD - Relative Percent Difference

A This sample does not have a typical gasoline pattern.

B1 This sample does not have a typical diesel pattern.

B The blank exhibited a positive result greater than the reporting limit for this compound.

C The sample appears to contain a lighter hydrocarbon than gasoline.

D The sample appears to extend to a heavier hydrocarbon range than gasoline.

E The sample appears to extend to a lighter hydrocarbon range than diesel.

F The sample appears to extend to a heavier hydrocarbon range than diesel.

G The positive result for gasoline is due to single component contamination.

H The gasoline elution pattern for the sample is not typical.

I The oil pattern for this sample is not typical.

J The result for this compound is an estimated concentration.

L The LCS recovery exceeded control limits. See the LCS page of this report.

M MS and/or MSD percent recovery exceeds control limits.

MR The MS/MSD RPD is greater than 20%. The sample was re-extracted and re-analyzed with similar results. This is due to a matrix interference, likely a non-homogeneity of the sample.

N Manual integration performed on sample for quantification.

P A post digestion spike was analyzed, and recoveries are within control limits.

Q Detection limits elevated due to sample matrix.

R The duplicate RPD was greater than 20%. The sample was re-extracted and re-analyzed with similar results. This indicates a matrix interference in the sample, likely a non-homogeneity of the sample.

SR Surrogate recovery outside control limits. See the surrogate page of the report.

U Sample not provided to laboratory in proper sampling container.

V Analysis was requested for volatiles analysis, sample contained headspace.

W The duplicate RPD was greater than 20%. Due to insufficient sample, re-analysis was not possible.

X Sample was analyzed outside recommended holding times.

Y The result for this parameter was greater than the TCLP regulatory limit.

Z The pattern seen for the parameter being analyzed is not typical.



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

281001.60

BOTHELL ■ (425) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Landau Associates, Inc.
23107 - 100th Ave. W., P.O. Box 1029
Edmonds, WA 98020-9129

Project: WINLOCK
Project Number: 281001.31
Project Manager: Tim Hunting

Sampled: 8/19/97
Received: 8/19/97
Reported: 9/17/97 09:09

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW-4	B708321-01	Water	8/19/97
MW-1	B708321-02	Water	8/19/97
MW-2	B708321-03	Water	8/19/97
MW-3	B708321-04	Water	8/19/97

North Creek Analytical, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document.
This analytical report must be reproduced in its entirety.*

Joy B Chang, Project Manager

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

Page 1 of 9



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Landau Associates, Inc.
23107 - 100th Ave. W., P.O. Box 1029
Edmonds, WA 98020-9129

Project: WINLOCK
Project Number: 281001.31
Project Manager: Tim Hunting

Sampled: 8/19/97
Received: 8/19/97
Reported: 9/17/97 09:09

Diesel Hydrocarbons (C12-C24) by WTPH-D North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-4				B708321-01			Water	
Diesel Range Hydrocarbons	0870578	8/20/97	8/21/97		0.250	ND	mg/l	
Surrogate: 2-FBP	"	"	"	50.0-150		76.1	%	
MW-1				B708321-02			Water	
Diesel Range Hydrocarbons	0870578	8/20/97	8/21/97		0.250	ND	mg/l	
Surrogate: 2-FBP	"	"	"	50.0-150		78.6	%	
MW-2				B708321-03			Water	
Diesel Range Hydrocarbons	0870578	8/20/97	8/21/97		0.250	ND	mg/l	
Surrogate: 2-FBP	"	"	"	50.0-150		74.6	%	
MW-3				B708321-04			Water	
Diesel Range Hydrocarbons	0870578	8/20/97	8/21/97		0.250	ND	mg/l	
Surrogate: 2-FBP	"	"	"	50.0-150		68.1	%	

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions

Joy B Chang, Project Manager

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

Page 2 of



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Landau Associates, Inc.
23107 - 100th Ave. W., P.O. Box 1029
Edmonds, WA 98020-9129

Project: WINLOCK
Project Number: 281001.31
Project Manager: Tim Hunting

Sampled: 8/19/97
Received: 8/19/97
Reported: 9/17/97 09:09

Total Metals by EPA 6000/7000 Series Methods North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
MW-4								
B708321-01								Water
Antimony	0970032	9/2/97	9/5/97	EPA 6010A	0.100	ND	mg/l	
Beryllium	"	"	9/8/97	EPA 6010A	0.00500	ND	"	
Cadmium	"	"	9/5/97	EPA 6010A	0.0050	ND	"	
Chromium	"	"	9/5/97	EPA 6010A	0.0100	ND	"	
Copper	"	"	"	EPA 6010A	0.0300	ND	"	
Nickel	"	"	"	EPA 6010A	0.0300	ND	"	
Thallium	"	"	"	EPA 6010A	0.200	ND	"	
Zinc	"	"	"	EPA 6010A	0.0200	0.0362	"	
Arsenic	0870783	8/27/97	9/11/97	EPA 7060A	0.00400	ND	"	
Lead	"	"	8/28/97	EPA 7421	0.00200	0.00383	"	
Mercury	0870615	8/21/97	8/21/97	EPA 7470A	0.00100	ND	"	
Selenium	0870783	8/27/97	9/11/97	EPA 7740	0.00500	ND	"	
Silver	0970032	9/2/97	"	EPA 7760A	0.0200	ND	"	
MW-1								
B708321-02								Water
Antimony	0970032	9/2/97	9/5/97	EPA 6010A	0.100	ND	mg/l	
Beryllium	"	"	9/8/97	EPA 6010A	0.00500	ND	"	
Cadmium	"	"	9/5/97	EPA 6010A	0.0050	ND	"	
Chromium	"	"	9/5/97	EPA 6010A	0.0100	ND	"	
Copper	"	"	"	EPA 6010A	0.0300	ND	"	
Nickel	"	"	"	EPA 6010A	0.0300	ND	"	
Thallium	"	"	"	EPA 6010A	0.200	ND	"	
Zinc	"	"	"	EPA 6010A	0.0200	ND	"	
Arsenic	0870783	8/27/97	9/11/97	EPA 7060A	0.00400	ND	"	
Lead	"	"	8/28/97	EPA 7421	0.00200	ND	"	
Mercury	0870615	8/21/97	8/21/97	EPA 7470A	0.00100	ND	"	
Selenium	0870783	8/27/97	9/11/97	EPA 7740	0.00500	ND	"	
Silver	0970032	9/2/97	"	EPA 7760A	0.0200	ND	"	
MW-2								
B708321-03								Water
Antimony	0970032	9/2/97	9/5/97	EPA 6010A	0.100	ND	mg/l	
Beryllium	"	"	9/8/97	EPA 6010A	0.00500	ND	"	
Cadmium	"	"	9/5/97	EPA 6010A	0.0050	ND	"	
Chromium	"	"	9/5/97	EPA 6010A	0.0100	ND	"	
Copper	"	"	"	EPA 6010A	0.0300	ND	"	
Nickel	"	"	"	EPA 6010A	0.0300	ND	"	
Thallium	"	"	"	EPA 6010A	0.200	ND	"	
Zinc	"	"	"	EPA 6010A	0.0200	0.0320	"	

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Joy B Chang, Project Manager

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

Page 3 of 9



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Landau Associates, Inc.
23107 - 100th Ave. W., P.O. Box 1029
Edmonds, WA 98020-9129

Project: WINLOCK
Project Number: 281001.31
Project Manager: Tim Hunting

Sampled: 8/19/97
Received: 8/19/97
Reported: 9/17/97 09:09

Total Metals by EPA 6000/7000 Series Methods North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
MW-2 (continued)				B708321-03			Water	
Arsenic	0870783	8/27/97	9/11/97	EPA 7060A	0.00400	0.00500	"	
Lead	"	"	8/28/97	EPA 7421	0.00200	0.00744	"	
Mercury	0870615	8/21/97	8/21/97	EPA 7470A	0.00100	ND	"	
Selenium	0870783	8/27/97	9/11/97	EPA 7740	0.00500	ND	"	
Silver	0970032	9/2/97	9/11/97	EPA 7760A	0.0200	ND	mg/l	
MW-3				B708321-04			Water	
Antimony	0970032	9/2/97	9/5/97	EPA 6010A	0.100	ND	mg/l	
Beryllium	"	"	9/8/97	EPA 6010A	0.00500	ND	"	
Cadmium	"	"	9/5/97	EPA 6010A	0.0050	ND	"	
Chromium	"	"	9/5/97	EPA 6010A	0.0100	ND	"	
Copper	"	"	"	EPA 6010A	0.0300	ND	"	
Nickel	"	"	"	EPA 6010A	0.0300	ND	"	
Thallium	"	"	"	EPA 6010A	0.200	ND	"	
Zinc	"	"	"	EPA 6010A	0.0200	0.0219	"	
Arsenic	0870783	8/27/97	9/11/97	EPA 7060A	0.00400	0.00460	"	
Lead	"	"	8/28/97	EPA 7421	0.00200	0.00234	"	
Mercury	0870615	8/21/97	8/21/97	EPA 7470A	0.00100	ND	"	
Selenium	0870783	8/27/97	9/11/97	EPA 7740	0.00500	ND	"	
Silver	0970032	9/2/97	"	EPA 7760A	0.0200	ND	"	



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Landau Associates, Inc.
23107 - 100th Ave. W., P.O. Box 1029
Edmonds, WA 98020-9129

Project: WINLOCK
Project Number: 281001.31
Project Manager: Tim Hunting

Sampled: 8/19/97
Received: 8/19/97
Reported: 9/17/97 09:09

Diesel Hydrocarbons (C12-C24) by WTPH-D/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0870578 Date Prepared: 8/20/97 Extraction Method: EPA 3520/600 Series										
Blank 0870578-BLK1										
Diesel Range Hydrocarbons	8/21/97			ND	mg/l	0.250				
Surrogate: 2-FBP	"	0.351		0.294	"	50.0-150	83.8			
LCS 0870578-BS1										
Diesel Range Hydrocarbons	8/21/97	2.04		1.96	mg/l	52.0-131	96.1			
Surrogate: 2-FBP	"	0.351		0.309	"	50.0-150	88.0			
Duplicate 0870578-DUP1 B708321-01										
Diesel Range Hydrocarbons	8/21/97		ND	ND	mg/l				44.0	
Surrogate: 2-FBP	"	0.681		0.480	"	50.0-150	70.5			

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Joy B Chang, Project Manager

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Landau Associates, Inc.	Project: WINLOCK	Sampled: 8/19/97
23107 - 100th Ave. W., P.O. Box 1029	Project Number: 281001.31	Received: 8/19/97
Edmonds, WA 98020-9129	Project Manager: Tim Hunting	Reported: 9/17/97 09:09

Total Metals by EPA 6000/7000 Series Methods/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 0870615										
Date Prepared: 8/21/97										
Extraction Method: BrCl Digestion										
Blank	0870615-BLK1									
Mercury	8/21/97			ND	mg/l	0.00100				
LCS	0870615-BS1									
Mercury	8/21/97	0.00500		0.00505	mg/l	70.0-130	101			
Duplicate	0870615-DUP1 B708119-01									
Mercury	8/21/97		ND	ND	mg/l			20.0		
Matrix Spike	0870615-MS1 B708119-01									
Mercury	8/21/97	0.00500	ND	0.00487	mg/l	75.0-125	97.4			
Matrix Spike Dup	0870615-MSD1 B708119-01									
Mercury	8/21/97	0.00500	ND	0.00505	mg/l	75.0-125	101	20.0	3.63	
Batch: 0870783										
Date Prepared: 8/27/97										
Extraction Method: EPA 3020										
Blank	0870783-BLK1									
Arsenic	9/11/97			ND	mg/l	0.00100				
Lead	8/28/97			ND	"	0.00200				
Selenium	9/11/97			ND	"	0.00100				
LCS	0870783-BS1									
Arsenic	9/11/97	0.0500		0.0494	mg/l	75.0-125	98.8			
Lead	8/28/97	0.0260		0.0239	"	75.0-125	91.9			
Selenium	9/11/97	0.0250		0.0241	"	75.0-125	96.4			
Duplicate	0870783-DUP1 B708232-01									
Arsenic	9/11/97		ND	ND	mg/l			20.0		
Lead	8/28/97		ND	ND	"			20.0		
Selenium	9/11/97		ND	ND	"			20.0		
Matrix Spike	0870783-MS1 B708232-01									
Arsenic	9/11/97	0.0500	ND	0.0488	mg/l	70.0-130	97.6			
Lead	8/28/97	0.0260	ND	0.0259	"	70.0-130	99.6			
Selenium	9/11/97	0.0250	ND	0.0249	"	70.0-130	99.6			
Matrix Spike Dup	0870783-MSD1 B708232-01									
Arsenic	9/11/97	0.0500	ND	0.0413	mg/l	70.0-130	82.6	20.0	16.6	

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definition

Joy B Chang, Project Manager

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

Page 6 of 6



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Landau Associates, Inc.
23107 - 100th Ave. W., P.O. Box 1029
Edmonds, WA 98020-9129

Project: WINLOCK
Project Number: 281001.31
Project Manager: Tim Hunting

Sampled: 8/19/97
Received: 8/19/97
Reported: 9/17/97 09:09

Total Metals by EPA 6000/7000 Series Methods/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
---------	---------------	-------------	---------------	-----------	-------	----------------------------------	-------------	--------------	----------	--------

Matrix Spike Dup (continued)

0870783-MSD1

B708232-01

Lead	8/28/97	0.0260	ND	0.0253	mg/l	70.0-130	97.3	20.0	2.34	
Selenium	9/11/97	0.0250	ND	0.0252	"	70.0-130	101	20.0	1.40	

Batch: 0970032

Date Prepared: 9/2/97

Extraction Method: EPA 3010

Blank

0970032-BLK1

Antimony	9/5/97		ND	mg/l	0.100					
Beryllium	9/8/97		ND	"	0.00500					
Cadmium	9/5/97		ND		0.00500					
Chromium	9/5/97		ND	"	0.0100					
Copper	"		ND	"	0.0300					
Nickel	"		ND	"	0.0300					
Thallium	"		ND	"	0.200					
Zinc	"		ND	"	0.0200					
Silver	9/11/97		ND	"	0.0200					

LCS

0970032-BS1

Antimony	9/5/97	1.00	0.936	mg/l	80.0-120	93.6				
Beryllium	9/8/97	1.00	0.928	"	80.0-120	92.8				
Cadmium	9/5/97	1.00	0.923		80.0-120	92.3				
Chromium	9/5/97	1.00	0.924	"	80.0-120	92.4				
Copper	"	1.00	0.934	"	80.0-120	93.4				
Nickel	"	1.00	0.908	"	80.0-120	90.8				
Thallium	"	1.00	0.877	"	80.0-120	87.7				
Zinc	"	1.00	0.959	"	80.0-120	95.9				
Silver	9/11/97	1.00	0.947	"	75.0-125	94.7				

Duplicate

0970032-DUP1

B708321-02

Antimony	9/5/97		ND	ND	mg/l			20.0		
Beryllium	9/8/97		ND	ND	"			20.0		
Cadmium	9/5/97		ND	ND				20.0		
Chromium	9/5/97		ND	ND	"			20.0		
Copper	"		ND	ND	"			20.0		
Nickel	"		ND	ND	"			20.0		
Thallium	"		ND	ND	"			20.0		
Zinc	"		ND	ND	"			20.0		
Silver	9/11/97		ND	ND	"			20.0		

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Joy B Chang, Project Manager

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

Page 7 of 9



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Landau Associates, Inc.
23107 - 100th Ave. W., P.O. Box 1029
Edmonds, WA 98020-9129

Project: WINLOCK
Project Number: 281001.31
Project Manager: Tim Hunting

Sampled: 8/19/97
Received: 8/19/97
Reported: 9/17/97 09:09

Total Metals by EPA 6000/7000 Series Methods/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike										
	0970032-MS1		B708321-02							
Antimony	9/5/97	1.00	ND	0.974	mg/l	80.0-120	97.4			
Beryllium	9/8/97	1.00	ND	0.948	"	80.0-120	94.8			
Cadmium	9/5/97	1.00	ND	0.918	"	80.0-120	91.8			
Chromium	9/5/97	1.00	ND	0.933	"	80.0-120	93.3			
Copper	9/5/97	1.00	ND	0.915	mg/l	80.0-120	91.5			
Nickel	"	1.00	ND	0.872	"	80.0-120	87.2			
Thallium	"	1.00	ND	0.727	"	80.0-120	72.7			
Zinc	"	1.00	ND	0.938	"	80.0-120	93.8			
Silver	9/11/97	1.00	ND	0.991	"	75.0-125	99.1			
Matrix Spike										
	0970032-MS2		B708321-02							
Antimony	9/5/97	2.00	ND	1.99	mg/l	80.0-120	99.5			
Beryllium	9/8/97	2.00	ND	1.92	"	80.0-120	96.0			
Cadmium	9/5/97	2.00	ND	1.95	"	80.0-120	97.4			
Chromium	9/5/97	2.00	ND	1.95	"	80.0-120	97.5			
Copper	"	2.00	ND	1.88	"	80.0-120	94.0			
Nickel	"	2.00	ND	1.83	"	80.0-120	91.5			
Thallium	"	2.00	ND	2.26	"	80.0-120	113			
Zinc	"	2.00	ND	1.96	"	80.0-120	98.0			
Matrix Spike Dup										
	0970032-MSD1		B708321-02							
Antimony	9/5/97	1.00	ND	0.965	mg/l	80.0-120	96.5	20.0	0.928	
Beryllium	9/8/97	1.00	ND	0.899	"	80.0-120	89.9	20.0	5.31	
Cadmium	9/5/97	1.00	ND	0.883	"	80.0-120	88.3	20.0	3.89	
Chromium	9/5/97	1.00	ND	0.890	"	80.0-120	89.0	20.0	4.72	
Copper	"	1.00	ND	0.850	"	80.0-120	85.0	20.0	7.37	
Nickel	"	1.00	ND	0.849	"	80.0-120	84.9	20.0	2.67	
Thallium	"	1.00	ND	0.597	"	80.0-120	59.7	20.0	19.6	
Zinc	"	1.00	ND	0.900	"	80.0-120	90.0	20.0	4.13	
Silver	9/11/97	1.00	ND	0.933	"	75.0-125	93.3	20.0	6.03	

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definition.

Joy B Chang, Project Manager

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

Page 8 of



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (425) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Landau Associates, Inc. 23107 - 100th Ave. W., P.O. Box 1029 Edmonds, WA 98020-9129	Project: WINLOCK Project Number: 281001.31 Project Manager: Tim Hunting	Sampled: 8/19/97 Received: 8/19/97 Reported: 9/17/97 09:09
---	---	--

Notes and Definitions

#	Note
---	------

- | | |
|--------|---|
| 1 | The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch. |
| DET | Analyte DETECTED |
| ND | Analyte NOT DETECTED at or above the reporting limit |
| NR | Not Reported |
| dry | Sample results reported on a dry weight basis |
| Recov. | Recovery |
| RPD | Relative Percent Difference |

North Creek Analytical, Inc.

Joy B Chang, Project Manager

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132



RECEIVED
SEP 19 1997

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508 (206) 481-9200 FAX 485-2992
East 11115 Montgomery, Suite B, Spokane, WA 99206-4779 (509) 924-9200 FAX 924-9290
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132 (503) 643-9200 FAX 644-2202

CHAIN OF CUSTODY REPORT LANDAU ASSOCIATES, INC.

Work Order # B70832

[illegible]



**NORTH
CREEK
ANALYTICAL**
Environmental Laboratory Services

RECEIVED

JAN 13 1997

Landau Associates, Inc.

PROJECT FILE

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Landau Associates, Inc.
23107 - 100th Ave. W., P.O. Box 1029
Edmonds, WA 98020-9129

Project: Winlock Wood Pro
Project Number: 281001.60
Project Manager: Tim Hunting

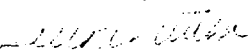
Sampled: 12/20/96
Received: 12/20/96
Reported: 1/9/97 07:47

ANALYTICAL REPORT FOR SAMPLES:

Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
MW-1	B612451-01	Water	12/20/96
MW-2	B612451-02	Water	12/20/96
MW-3	B612451-03	Water	12/20/96
LF-C5	B612451-04	Soil	12/20/96
LF-C6	B612451-05	Soil	12/20/96

North Creek Analytical, Inc.

*The results in this report apply to the samples analyzed in accordance with the chain of custody document.
This analytical report must be reproduced in its entirety.*


Laura L. Dutton, Director, Office of Analytical Services

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Landau Associates, Inc.
23107 - 100th Ave. W., P.O. Box 1029
Edmonds, WA 98020-9129

Project: Winlock Wood Pro
Project Number: 281001.60
Project Manager: Tim Hunting

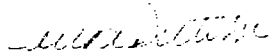
Sampled: 12/20/96
Received: 12/20/96
Reported: 1/9/97 07:47

Gasoline Hydrocarbons (Toluene to Dodecane) by WTPH-G North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
LF-C5				B612451-04			Soil	
Gasoline Range Hydrocarbons	1260623	12/24/96	12/24/96		100	1640	mg/kg dry	1
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		NR	%	2
LF-C6				B612451-05			Soil	
Gasoline Range Hydrocarbons	1260623	12/24/96	12/24/96		100	1480	mg/kg dry	1
Surrogate: 4-BFB (FID)	"	"	"	50.0-150		NR	%	2

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions


Laura L. Dutton, Director, Office of Analytical Services

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

Page 2 of



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Landau Associates, Inc.
23107 - 100th Ave. W., P.O. Box 1029
Edmonds, WA 98020-9129

Project: Winlock Wood Pro
Project Number: 281001.60
Project Manager: Tim Hunting

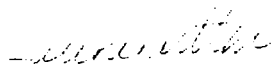
Sampled: 12/20/96
Received: 12/20/96
Reported: 1/9/97 07:47

Diesel Hydrocarbons (C12-C24) by WTPH-D North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Surrogate Limits	Reporting Limit	Result	Units	Notes*
MW-1				B612451-01			Water	
Diesel Range Hydrocarbons	1260568	12/23/96	12/25/96		0.250	ND	mg/l	
Surrogate: 2-FBP	"	"	"	50.0-150		74.7	%	
MW-2				B612451-02			Water	
Diesel Range Hydrocarbons	1260568	12/23/96	12/25/96		0.250	ND	mg/l	
Surrogate: 2-FBP	"	"	"	50.0-150		87.0	%	
MW-3				B612451-03			Water	
Diesel Range Hydrocarbons	1260568	12/23/96	12/25/96		0.250	ND	mg/l	
Surrogate: 2-FBP	"	"	"	50.0-150		88.3	%	

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.


Laura L. Dutton, Director, Office of Analytical Services

19939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Landau Associates, Inc.
23107 - 100th Ave. W., P.O. Box 1029
Edmonds, WA 98020-9129

Project: Winlock Wood Pro
Project Number: 281001.60
Project Manager: Tim Hunting

Sampled: 12/20/96
Received: 12/20/96
Reported: 1/9/97 07:47

Metals by EPA 6010/7000 Series Methods North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
MW-1				B612451-01			Water	
Antimony	0170003	12/31/96	1/7/97	EPA 6010A	0.100	ND	mg/l	
Beryllium	"	"	"	EPA 6010A	0.00500	ND	"	
Cadmium	"	"	"	EPA 6010A	0.00500	ND	"	
Chromium	"	"	"	EPA 6010A	0.0100	ND	"	
Copper	"	"	"	EPA 6010A	0.0300	ND	"	
Nickel	"	"	"	EPA 6010A	0.0300	ND	"	
Thallium	"	"	"	EPA 6010A	0.200	ND	"	
Zinc	"	"	"	EPA 6010A	0.0200	ND	"	
Arsenic	0170081	1/6/97	"	EPA 7060A	0.00400	ND	"	
Lead	"	"	1/6/97	EPA 7421	0.00200	ND	"	
Mercury	1260634	12/23/96	12/23/96	EPA 7470A	0.00100	ND	"	
Selenium	0170081	1/6/97	1/7/97	EPA 7740	0.00500	ND	"	
Silver	0170003	12/31/96	1/2/97	EPA 7760A	0.0200	ND	"	
MW-2				B612451-02			Water	
Antimony	0170003	12/31/96	1/7/97	EPA 6010A	0.100	ND	mg/l	
Beryllium	"	"	"	EPA 6010A	0.00500	ND	"	
Cadmium	"	"	"	EPA 6010A	0.00500	ND	"	
Chromium	"	"	"	EPA 6010A	0.0100	0.0115	"	
Copper	"	"	"	EPA 6010A	0.0300	0.0320	"	
Nickel	"	"	"	EPA 6010A	0.0300	ND	"	
Thallium	"	"	"	EPA 6010A	0.200	ND	"	
Zinc	"	"	"	EPA 6010A	0.0200	0.0265	"	
Arsenic	0170081	1/6/97	"	EPA 7060A	0.00400	ND	"	
Lead	"	"	1/6/97	EPA 7421	0.00200	0.0105	"	
Mercury	1260634	12/23/96	12/23/96	EPA 7470A	0.00100	ND	"	
Selenium	0170081	1/6/97	1/7/97	EPA 7740	0.00500	ND	"	
Silver	0170003	12/31/96	1/2/97	EPA 7760A	0.0200	ND	"	
MW-3				B612451-03			Water	
Antimony	0170003	12/31/96	1/7/97	EPA 6010A	0.100	ND	mg/l	
Beryllium	"	"	"	EPA 6010A	0.00500	ND	"	
Cadmium	"	"	"	EPA 6010A	0.00500	ND	"	
Chromium	"	"	"	EPA 6010A	0.0100	ND	"	
Copper	"	"	"	EPA 6010A	0.0300	ND	"	
Nickel	"	"	"	EPA 6010A	0.0300	ND	"	
Thallium	"	"	"	EPA 6010A	0.200	ND	"	
Zinc	"	"	"	EPA 6010A	0.0200	0.0236	"	

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions

Laura L. Dutton
Laura L. Dutton, Director, Office of Analytical Services

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

Page 4 of



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Landau Associates, Inc.
23107 - 100th Ave. W., P.O. Box 1029
Edmonds, WA 98020-9129

Project: Winlock Wood Pro
Project Number: 281001.60
Project Manager: Tim Hunting

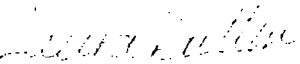
Sampled: 12/20/96
Received: 12/20/96
Reported: 1/9/97 07:47

Metals by EPA 6010/7000 Series Methods North Creek Analytical - Bothell

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
MW-3 (continued)				B612451-03			Water	
Arsenic	0170081	1/6/97	1/7/97	EPA 7060A	0.00400	ND	mg/l	
Lead	"	"	1/6/97	EPA 7421	0.00200	ND	"	
Mercury	1260634	12/23/96	12/23/96	EPA 7470A	0.00100	ND	"	
Selenium	0170081	1/6/97	1/7/97	EPA 7740	0.00500	ND	"	
Copper	0170003	12/31/96	1/2/97	EPA 7760A	0.0200	ND	"	

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.


Laura L Dutton, Director, Office of Analytical Services

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132



**NORTH
CREEK
ANALYTICAL**
Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Landau Associates, Inc.
23107 - 100th Ave. W., P.O. Box 1029
Edmonds, WA 98020-9129

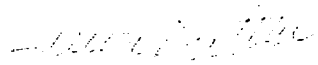
Project: Winlock Wood Pro
Project Number: 281001.60
Project Manager: Tim Hunting

Sampled: 12/20/96
Received: 12/20/96
Reported: 1/9/97 07:47

**Dry Weight Determination
North Creek Analytical - Bothell**

Sample Name	Lab ID	Matrix	Result	Units
LF-C5	B612451-04	Soil	70.9	%
LF-C6	B612451-05	Soil	71.3	%

North Creek Analytical, Inc.


Laura L. Dutton, Director, Office of Analytical Services

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Landau Associates, Inc.
23107 - 100th Ave. W., P.O. Box 1029
Edmonds, WA 98020-9129

Project: Winlock Wood Pro
Project Number: 281001.60
Project Manager: Tim Hunting

Sampled: 12/20/96
Received: 12/20/96
Reported: 1/9/97 07:47

Gasoline Hydrocarbons (Toluene to Dodecane) by WTPH-G/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Reporting Limit Units	Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1260623										
Blank										
Date Prepared: 12/24/96										
Extraction Method: MeOH Extraction										
1260623-BLK1										
Gasoline Range Hydrocarbons	12/24/96			ND	mg/kg dry	5.00				
Surrogate: 4-BFB (FID)	"	4.00		3.75	"	50.0-150	93.8			
1260623-BS1										
Gasoline Range Hydrocarbons	12/24/96	25.0		20.3	mg/kg dry	37.0-119	81.2			
Surrogate: 4-BFB (FID)	"	4.00		4.02	"	50.0-150	100			
Duplicate										
1260623-DUP1 B612451-05										
Gasoline Range Hydrocarbons	12/24/96		1480	908	mg/kg dry			53.0	47.9	
Surrogate: 4-BFB (FID)	"	5.61		ND	"	50.0-150	NR			2

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Laura L Dutton, Director, Office of Analytical Services

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Landau Associates, Inc.
23107 - 100th Ave. W., P.O. Box 1029
Edmonds, WA 98020-9129

Project: Winlock Wood Pro
Project Number: 281001.60
Project Manager: Tim Hunting

Sampled: 12/20/96
Received: 12/20/96
Reported: 1/9/97 07:47

Diesel Hydrocarbons (C12-C24) by WTPH-D/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Batch: 1260568										
Blank										
1260568-BLK1										
Diesel Range Hydrocarbons	12/24/96			ND	mg/l	0.250				
Surrogate: 2-FBP	"	0.344		0.310	"	50.0-150	90.1			
1260568-BS1										
Diesel Range Hydrocarbons	12/24/96	2.04		2.44	mg/l	54.0-121	120			
Surrogate: 2-FBP	"	0.344		0.310	"	50.0-150	90.1			
Duplicate										
1260568-DUP1 B612392-05										
Diesel Range Hydrocarbons	12/24/96		ND	ND	mg/l			44.0		
Surrogate: 2-FBP	"	0.648		0.549	"	50.0-150	84.7			
Duplicate										
1260568-DUP2 B612392-06										
Diesel Range Hydrocarbons	12/24/96		ND	ND	mg/l			44.0		
Surrogate: 2-FBP	"	0.648		0.581	"	50.0-150	89.7			

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions

Laura L Dutton, Director, Office of Analytical Services

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

Page 8 of



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Landau Associates, Inc.	Project: Winlock Wood Pro	Sampled: 12/20/96
23107 - 100th Ave. W., P.O. Box 1029	Project Number: 281001.60	Received: 12/20/96
Edmonds, WA 98020-9129	Project Manager: Tim Hunting	Reported: 1/9/97 07:47

Metals by EPA 6010/7000 Series Methods/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
---------	---------------	-------------	---------------	-----------	-------	----------------------------------	-------------	--------------	----------	--------

Batch: 0170003

Date Prepared: 12/31/96

Extraction Method: EPA 3010

Blank

0170003-BLK1

Antimony	1/7/97			ND	mg/l	0.100				
Beryllium	"			ND	"	0.00500				
Cadmium	"			ND	"	0.00500				
Chromium	"			ND	"	0.0100				
Copper	"			ND	"	0.0300				
Nickel	"			ND	"	0.0300				
Thallium	"			ND	"	0.200				
Zinc	"			ND	"	0.0200				
Silver	1/2/97			ND	"	0.0200				

LCS

0170003-BS1

Antimony	1/7/97	1.00		0.909	mg/l	70.0-130	90.9			
Beryllium	"	1.00		0.952	"	70.0-130	95.2			
Cadmium	"	1.00		0.879	"	70.0-130	87.9			
Chromium	"	1.00		0.933	"	70.0-130	93.3			
Copper	"	1.00		0.924	"	70.0-130	92.4			
Nickel	"	1.00		0.932	"	70.0-130	93.2			
Thallium	"	1.00		0.859	"	70.0-130	85.9			
Zinc	"	1.00		0.916	"	70.0-130	91.6			
Silver	1/2/97	0.250		0.208	"	70.0-130	83.2			

Duplicate

0170003-DUP1

B612457-01

Antimony	1/7/97		ND	ND	mg/l			20.0		3
Beryllium	"		ND	ND	"			20.0		3
Cadmium	"		ND	ND	"			20.0		3
Chromium	"		ND	ND	"			20.0		3
Copper	"		ND	ND	"			20.0		3
Nickel	"		ND	ND	"			20.0		3
Thallium	"		ND	ND	"			20.0		3
Zinc	"		1.83	1.81	"			20.0	1.10	
Silver	1/2/97		ND	ND	"			20.0		3

Matrix Spike

0170003-MS1

B612457-01

Antimony	1/7/97	1.00	ND	0.890	mg/l	75.0-125	89.0			
Beryllium	"	1.00	ND	0.961	"	75.0-125	96.1			
Cadmium	"	1.00	ND	0.883	"	75.0-125	88.3			
Chromium	"	1.00	ND	0.932	"	75.0-125	93.2			

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Laura L Dutton, Director, Office of Analytical Services

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Landau Associates, Inc.
23107 - 100th Ave. W., P.O. Box 1029
Edmonds, WA 98020-9129

Project: Winlock Wood Pro
Project Number: 281001.60
Project Manager: Tim Hunting

Sampled: 12/20/96
Received: 12/20/96
Reported: 1/9/97 07:47

Metals by EPA 6010/7000 Series Methods/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike (continued)										
	0170003-MS1		B612457-01							
Copper	1/7/97	1.00	ND	0.918	mg/l	75.0-125	91.8			
Nickel	"	1.00	ND	0.923	"	75.0-125	92.3			
Thallium	"	1.00	ND	0.899	"	75.0-125	89.9			
Zinc	"	1.00	1.83	2.73	"	75.0-125	90.0			
Mercury	1/2/97	0.250	ND	0.213	"	75.0-125	85.2			
Matrix Spike Dup										
	0170003-MSD1		B612457-01							
Antimony	1/7/97	1.00	ND	0.899	mg/l	75.0-125	89.9	20.0	1.01	
Beryllium	"	1.00	ND	0.974	"	75.0-125	97.4	20.0	1.34	
Cadmium	"	1.00	ND	0.874	"	75.0-125	87.4	20.0	1.02	
Chromium	"	1.00	ND	0.932	"	75.0-125	93.2	20.0	0	
Copper	"	1.00	ND	0.921	"	75.0-125	92.1	20.0	0.326	
Nickel	"	1.00	ND	0.929	"	75.0-125	92.9	20.0	0.648	
Thallium	"	1.00	ND	0.925	"	75.0-125	92.5	20.0	2.85	
Zinc	"	1.00	1.83	2.71	"	75.0-125	88.0	20.0	2.25	
Silver	1/2/97	0.250	ND	0.214	"	75.0-125	85.6	20.0	0.468	
Batch: 0170081										
Blank										
Date Prepared: 1/6/97										
0170081-BLK1										
Arsenic	1/7/97			ND	mg/l	0.00400				
Lead	1/6/97			ND	"	0.00200				
Mercury	1/7/97			ND	"	0.00500				
LCS										
0170081-BS1										
Arsenic	1/7/97	0.0500		0.0483	mg/l	70.0-130	96.6			
Lead	1/6/97	0.0250		0.0270	"	70.0-130	108			
Selenium	1/7/97	0.0250		0.0209	"	70.0-130	83.6			
Duplicate										
0170081-DUP1 B612451-01										
Arsenic	1/7/97		ND	ND	mg/l			20.0		3
Lead	1/6/97		ND	ND	"			20.0		3
Selenium	1/7/97		ND	ND	"			20.0		3
Matrix Spike										
0170081-MS1 B612451-01										
Arsenic	1/7/97	0.0500	ND	0.0508	mg/l	75.0-125	102			
Lead	1/6/97	0.0250	ND	0.0284	"	75.0-125	114			
Selenium	1/7/97	0.0250	ND	0.0163	"	75.0-125	65.2			

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions

Laura L Dutton, Director, Office of Analytical Services

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

Page 10 of 10



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

Landau Associates, Inc.
23107 - 100th Ave. W., P.O. Box 1029
Edmonds, WA 98020-9129

Project: Winlock Wood Pro
Project Number: 281001.60
Project Manager: Tim Hunting

Sampled: 12/20/96
Received: 12/20/96
Reported: 1/9/97 07:47

Metals by EPA 6010/7000 Series Methods/Quality Control North Creek Analytical - Bothell

Analyte	Date Analyzed	Spike Level	Sample Result	QC Result	Units	Reporting Limit Recov. Limits	Recov. %	RPD Limit	RPD %	Notes*
Matrix Spike Dup										
	0170081-MSD1		B612451-01							
Arsenic	1/7/97	0.0500	ND	0.0500	mg/l	75.0-125	100	20.0	1.98	
Lead	1/6/97	0.0250	ND	0.0283	"	75.0-125	113	20.0	0.881	
Selenium	1/7/97	0.0250	ND	0.0152	"	75.0-125	60.8	20.0	6.98	4
Lab: 1260634										
Date Prepared: 12/23/96										
Blank										
1260634-BLK1										
Mercury	12/23/96			ND	mg/l	0.00100				
LCS										
1260634-BS1										
Mercury	12/23/96	0.00500		0.00601	mg/l	70.0-130	120			
Duplicate										
1260634-DUP1										
B612451-01										
Mercury	12/23/96		ND	ND	mg/l			20.0		3
Matrix Spike										
1260634-MS1										
B612451-01										
Mercury	12/23/96	0.00500	ND	0.00603	mg/l	75.0-125	121			
Matrix Spike Dup										
1260634-MSD1										
B612451-01										
Mercury	12/23/96	0.00500	ND	0.00610	mg/l	75.0-125	122	20.0	0.823	

North Creek Analytical, Inc.

*Refer to end of report for text of notes and definitions.

Laura L Dutton, Director, Office of Analytical Services

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132



NORTH CREEK ANALYTICAL

Environmental Laboratory Services

BOTHELL ■ (206) 481-9200 ■ FAX 485-2992
SPOKANE ■ (509) 924-9200 ■ FAX 924-9290
PORTLAND ■ (503) 643-9200 ■ FAX 644-2202

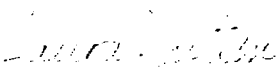
Landau Associates, Inc. 23107 - 100th Ave. W., P.O. Box 1029 Edmonds, WA 98020-9129	Project: Winlock Wood Pro Project Number: 281001.60 Project Manager: Tim Hunting	Sampled: 12/20/96 Received: 12/20/96 Reported: 1/9/97 07:47
---	--	---

Notes and Definitions

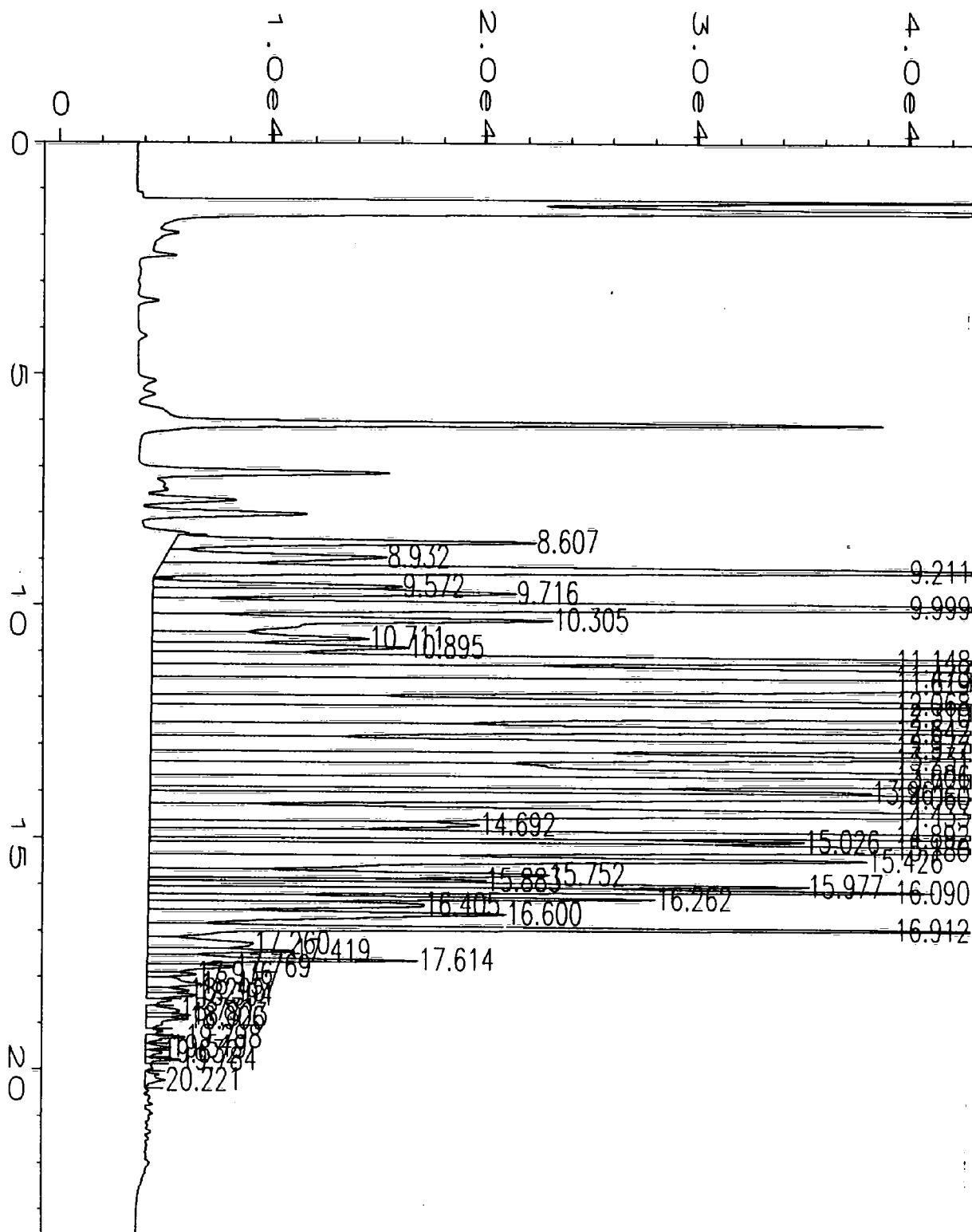
#	Note
---	------

- 1 The chromatogram for this sample does not resemble a typical gasoline pattern. Please refer to the sample chromatogram.
 - 2 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.
 - 3 Analyses are not controlled on RPD values from sample concentrations less than 10 times the reporting limit.
 - ~ The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the recovery for this analyte does not represent an out-of-control condition for the batch.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- Recov. Recovery
- RPD Relative Percent Difference

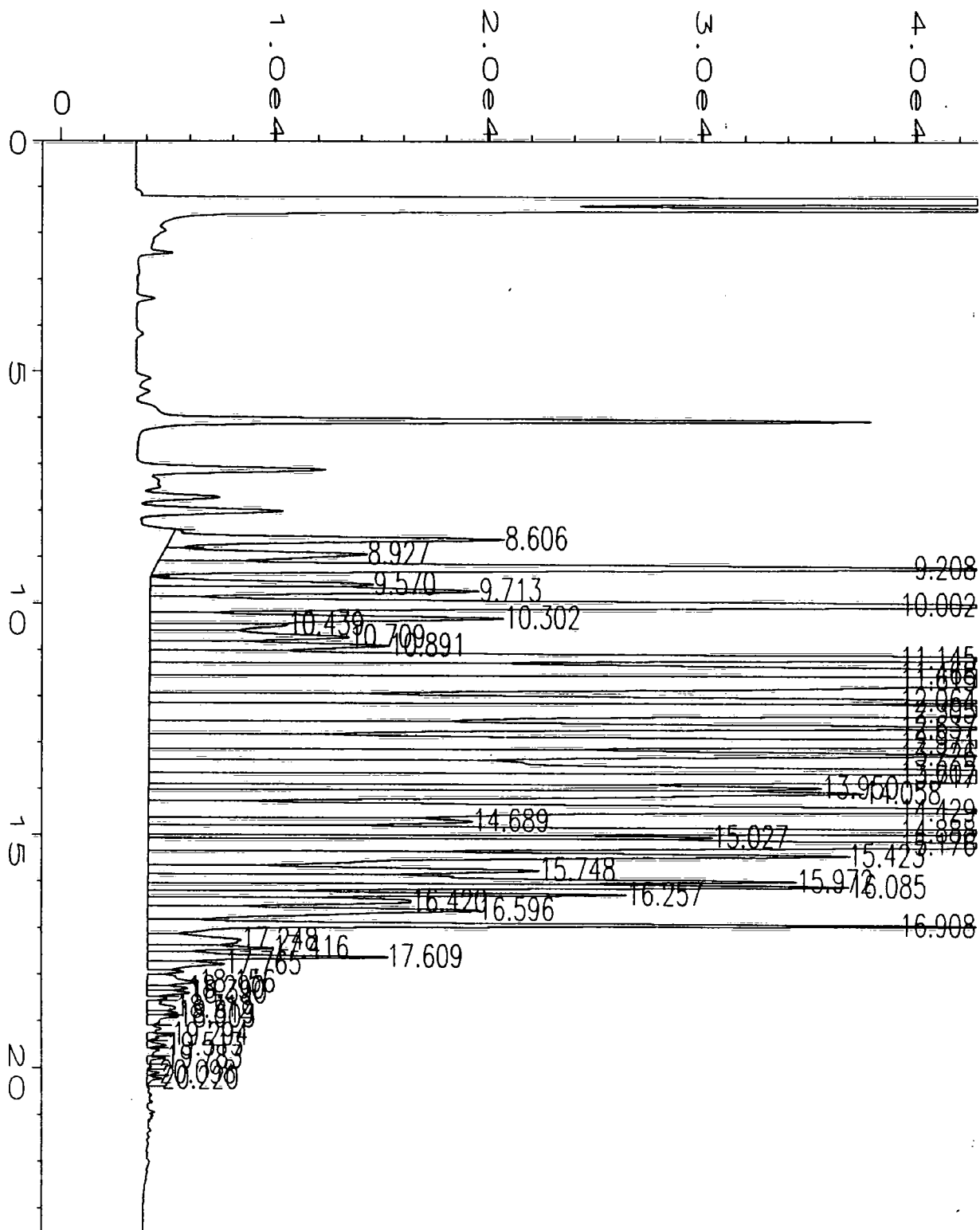
North Creek Analytical, Inc.


Laura L Dutton, Director, Office of Analytical Services

18939 120th Avenue N.E., Suite 101, Bothell, WA 98011-9508
East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

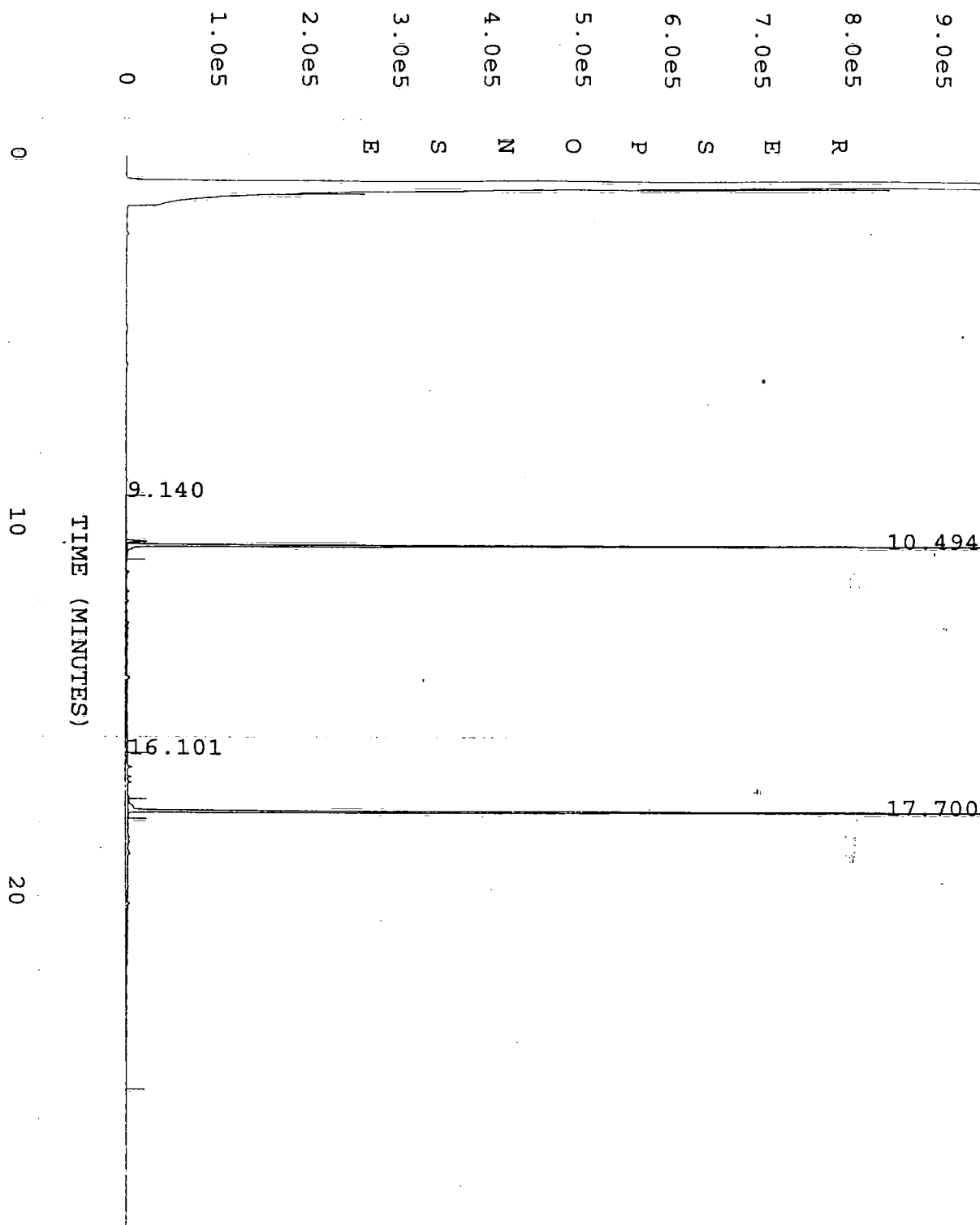


Data File Name	: C:\HPCHEM\2\DATA\122496\024F0601.D	Page Number	: 1
Operator	: BC	Vial Number	: 24
Instrument	: GC#6	Injection Number	: 1
Sample Name	: b612451-04 r1	Sequence Line	: 6
Run Time Bar Code:		Instrument Method:	WA-SOIL.MTH
Acquired on	: 24 Dec 96 06:37 PM	Analysis Method	: WA-SOIL.MTH
Report Created on:	24 Dec 96 07:01 PM		
Multiplier	: 20		
Sample Info	: 5 ul		



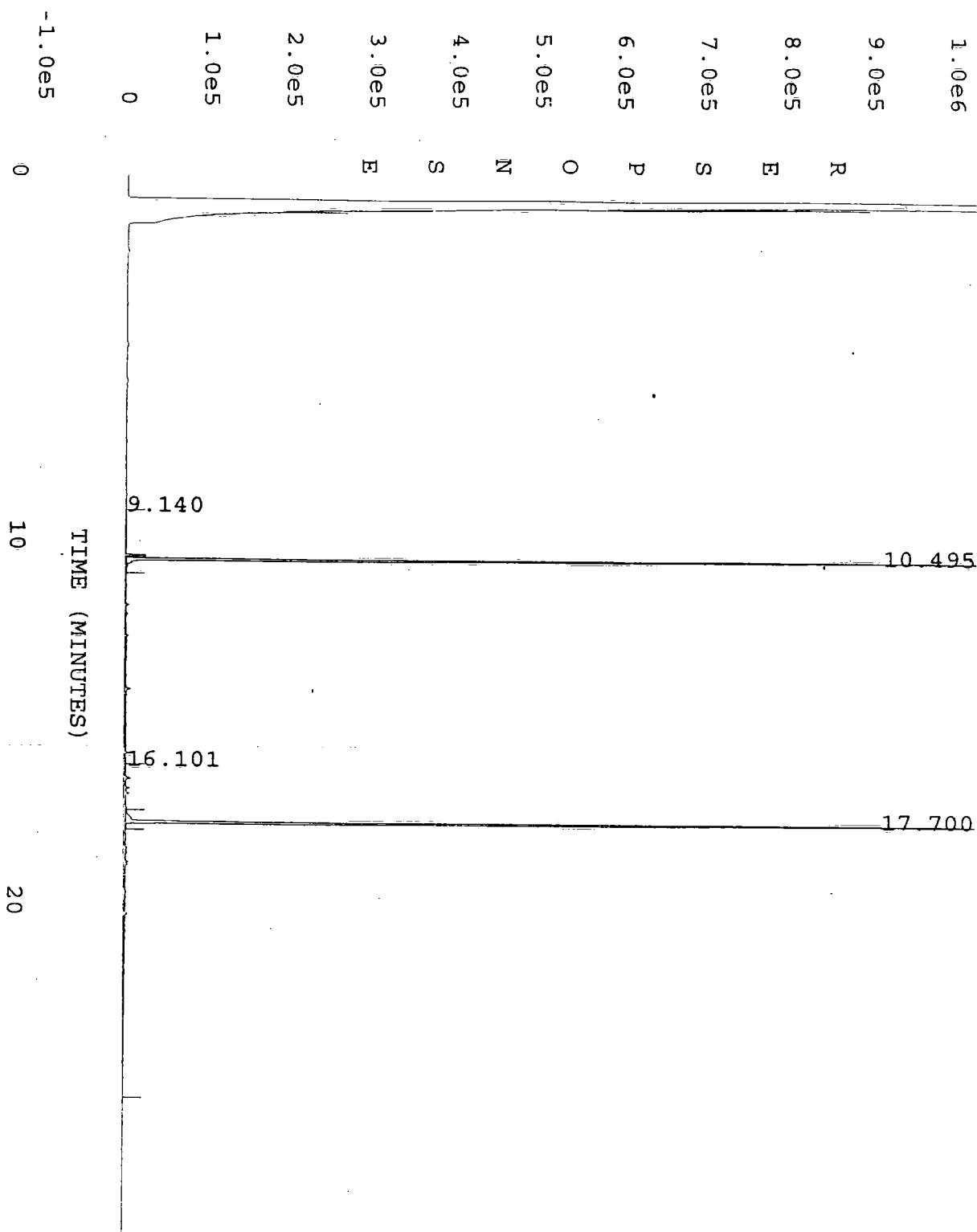
Data File Name	: C:\HPCHEM\2\DATA\122496\025F0601.D	Page Number	: 1
Operator	: BC	Vial Number	: 25
Instrument	: GC#6	Injection Number	: 1
Sample Name	: b612451-05 r1	Sequence Line	: 6
Run Time Bar Code:		Instrument Method:	WA-SOIL.MTH
Acquired on	: 24 Dec 96 07:07 PM	Analysis Method	: WA-SOIL.MTH
Report Created on:	24 Dec 96 07:31 PM		
Multiplier	: 20		
Sample Info	: 5 ul		

user modified



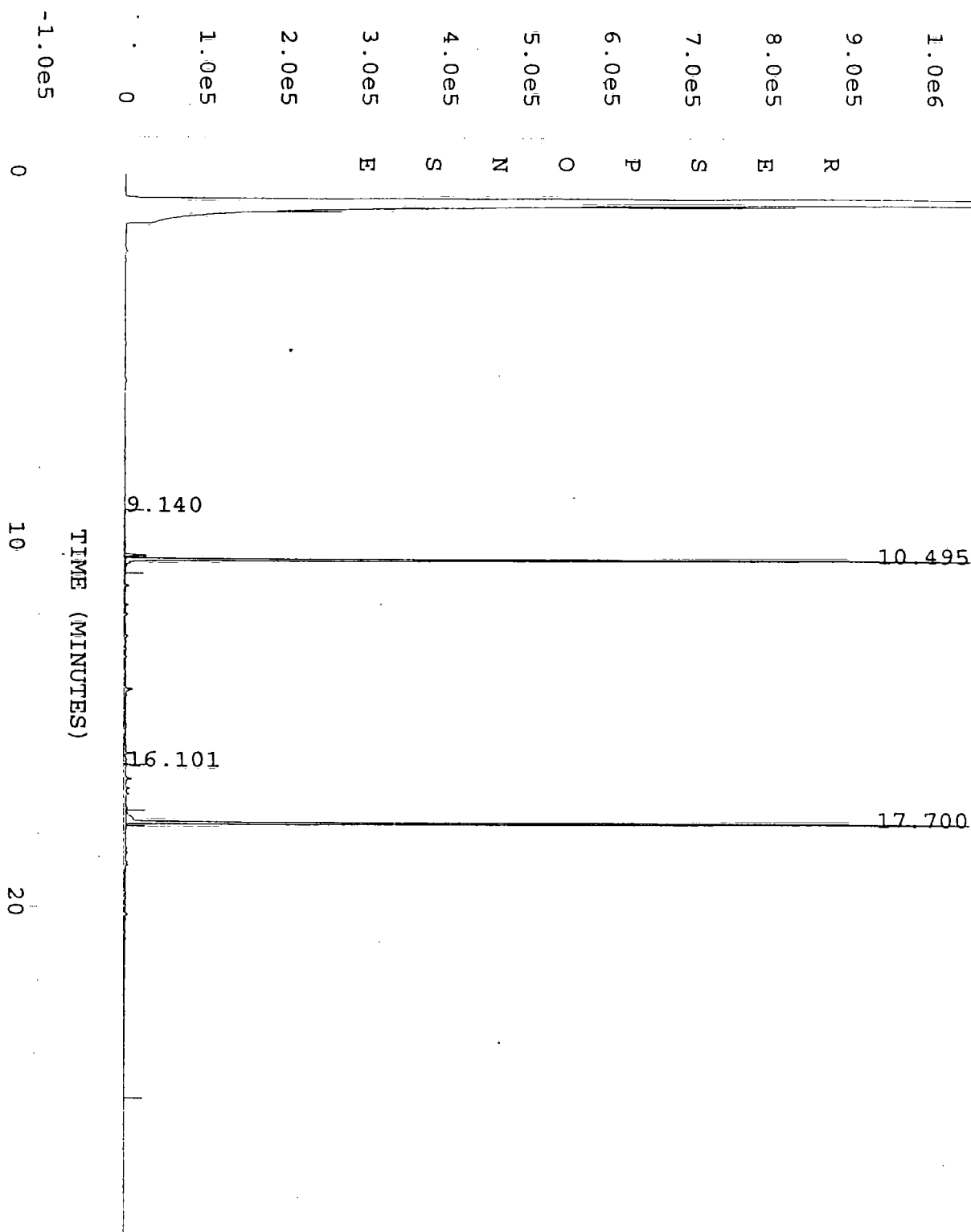
Data File Name	: C:\HPCHEM\3\DATA\DEC24\072R1501.D	Page Number	: 1
Operator	: TF	Vial Number	: 72
Instrument	: FUBAR	Injection Number	: 1
Sample Name	: 612451-01 W	Sequence Line	: 15
Run Time Bar Code:		Instrument Method:	TPHE.MTH
Acquired on	: 25 Dec 96 09:53 AM	Analysis Method	: TPHE.MTH
Report Created on:	26 Dec 96 11:35 AM		

user modified



Data File Name	: C:\HPCHEM\3\DATA\DEC24\073R1501.D	Page Number	: 1
Operator	: TF	Vial Number	: 73
Instrument	: FUBAR	Injection Number	: 1
Sample Name	: 612451-02 W	Sequence Line	: 15
Run Time Bar Code:		Instrument Method	: TPHE.MTH
Acquired on	: 25 Dec 96 10:32 AM	Analysis Method	: TPHE.MTH
Report Created on:	26 Dec 96 11:36 AM		

user modified



Data File Name	: C:\HPCHEM\3\DATA\DEC24\074R1501.D	Page Number	: 1
Operator	: TF	Vial Number	: 74
Instrument	: FUBAR	Injection Number	: 1
Sample Name	: 612451-03 W	Sequence Line	: 15
Run Time Bar Code	:	Instrument Method	: TPHE.MTH
Acquired on	: 25 Dec 96 11:11 AM	Analysis Method	: TPHE.MTH
Report Created on	: 26 Dec 96 11:37 AM		

B6012451
Date 12/20/96
Page 1 of 1

PINK COPY - Client Representative

7 [redacted] 31/02/20

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Timothy HunttingClient Project ID: Vanguard Properties
Sample Matrix: Water
Analysis Method: WTPH-D Extended
First Sample #: B509465-01Sampled: Sep 21, 1995
Received: Sep 25, 1995
Extracted: Sep 27, 1995
Analyzed: Sep 28-29, 1995
Reported: Oct 10, 1995**TOTAL PETROLEUM HYDROCARBONS - DIESEL RANGE EXTENDED**

Sample Number	Sample Description	Diesel Result mg/L (ppm)	Heavy Oil Result mg/L (ppm)	Surrogate Recovery %
B509465-01	MW-1	N.D.	N.D.	58
B509465-02	MW-2 9/19/95	N.D.	N.D.	55
B509465-03	MW-3 9/20/95	0.27	N.D.	52
BLK092795	Method Blank	N.D.	N.D.	67

Reporting Limit:**0.25****0.75**

2-Fluorobiphenyl surrogate recovery control limits are 50 - 150%.

Extractable Hydrocarbons are quantitated as Diesel Range Organics (C12 - C24) and Heavy Oil Range Organics (>C24).

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.*Laura Dutton*Laura Dutton
Project Manager

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Timothy Hunting

Client Project ID: Vanguard Properties
Sample Matrix: Water
Analysis Method: WTPH-D
Units: mg/L (ppm)

Analyst: T. Fitzgibbon

Extracted: Sep 27, 1995
Analyzed: Sep 28-29, 1995
Reported: Oct 10, 1995

HYDROCARBON QUALITY CONTROL DATA REPORT

ACCURACY ASSESSMENT Laboratory Control Sample

Diesel

Spike Conc.
Added: 2.0

Spike
Result: 1.73

%
Recovery: 87

Upper Control
Limit %: 119

Lower Control
Limit %: 74

PRECISION ASSESSMENT Sample Duplicate

Diesel Range
Organics

Sample
Number: B509465-03

Original
Result: 0.27

Duplicate
Result: 0.26

Relative % Difference Relative Percent Difference values are not reported at sample concentration levels less than 10 times the Reporting Limit.

Maximum
RPD: 44

NORTH CREEK ANALYTICAL In



Laura Dutton
Project Manager

% Recovery: $\frac{\text{Spike Result}}{\text{Spike Concentration Added}} \times 100$

Relative % Difference: $\frac{\text{Original Result} - \text{Duplicate Result}}{(\text{Original Result} + \text{Duplicate Result}) / 2} \times 100$

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Timothy Huntting

Client Project ID: Vanguard Properties
Sample Descript: MW-1
Analysis Method: EPA 6010/7000
Sample Number: B509465-01
Sample Matrix: Water

Sampled: Sep 21, 1995
Received: Sep 25, 1995
Digested: Sep 27, 1995
Analyzed: Sep 27-29, 1995
Reported: Oct 10, 1995

E.P.A. PRIORITY METALS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Antimony.....	5.0	N.D.
Arsenic.....	4.0	4.1
Beryllium.....	5.0	N.D.
Cadmium.....	5.0	N.D.
Chromium.....	10	N.D.
Copper.....	30	N.D.
Lead.....	2.0	N.D.
Mercury.....	1.0	N.D.
Nickel.....	30	N.D.
Selenium.....	5.0	N.D.
Silver.....	20	N.D.
Thallium.....	2.0	N.D.
Zinc.....	20	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.


Laura Dutton
Project Manager

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Timothy Huntting

Client Project ID: Vanguard Properties
Sample Descript: MW-2
Analysis Method: EPA 6010/7000
Sample Number: B509465-02
Sample Matrix: Water

Sampled: Sep 19, 1995
Received: Sep 25, 1995
Digested: Sep 27, 1995
Analyzed: Sep 27-29, 1995
Reported: Oct 10, 1995

E.P.A. PRIORITY METALS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Antimony.....	5.0	N.D.
Arsenic.....	4.0	5.4
Beryllium.....	5.0	N.D.
Cadmium.....	5.0	N.D.
Chromium.....	10	N.D.
Copper.....	30	N.D.
Lead.....	2.0	N.D.
Mercury.....	1.0	N.D.
Nickel.....	30	N.D.
Selenium.....	5.0	N.D.
Silver.....	20	N.D.
Thallium.....	2.0	N.D.
Zinc.....	20	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.



Laura Dutton
Project Manager

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Timothy Huntting

Client Project ID: Vanguard Properties
Sample Descript: MW-3
Analysis Method: EPA 6010/7000
Sample Number: B509465-03
Sample Matrix: Water

Sampled: Sep 20, 1995
Received: Sep 25, 1995
Digested: Sep 27, 1995
Analyzed: Sep 27-29, 1995
Reported: Oct 10, 1995

E.P.A. PRIORITY METALS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Antimony.....	5.0	N.D.
Arsenic.....	4.0	27
Beryllium.....	5.0	N.D.
Cadmium.....	5.0	N.D.
Chromium.....	10	N.D.
Copper.....	30	N.D.
Lead.....	2.0	N.D.
Mercury.....	1.0	N.D.
Nickel.....	30	N.D.
Selenium.....	5.0	N.D.
Silver.....	20	N.D.
Thallium.....	2.0	N.D.
Zinc.....	20	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.


Laura Dutton
Project Manager

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Timothy Hunting

Client Project ID: Vanguard Properties
Sample Descript: Method Blank
Analysis Method: EPA 6010/7000
Sample Number: BLK092795
Sample Matrix: Water

Digested: Sep 27, 1995
Analyzed: Sep 27-29, 1995
Reported: Oct 10, 1995

E.P.A. PRIORITY METALS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Antimony.....	5.0	N.D.
Arsenic.....	4.0	N.D.
Beryllium.....	5.0	N.D.
Cadmium.....	5.0	N.D.
Chromium.....	10	N.D.
Copper.....	30	N.D.
Lead.....	2.0	N.D.
Mercury.....	1.0	N.D.
Nickel.....	30	N.D.
Selenium.....	5.0	N.D.
Silver.....	20	N.D.
Thallium.....	2.0	N.D.
Zinc.....	20	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.


Laura Dutton
Project Manager

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Timothy Huntting

Client Project ID: Vanguard Properties
Sample Matrix : Water
Units: µg/L (ppb)

Analyst: K. Gendron
S. Davis

Digested: Sep 27, 1995
Reported: Oct 10, 1995

METALS QUALITY CONTROL DATA REPORT

ANALYTE

Sb	As	Be	Cd	Cr	Cu	Pb
----	----	----	----	----	----	----

EPA Method:	7041	7060	7740	6010	6010	6010	7421
Date Analyzed:	Oct 4, 1995	Sep 28, 1995	Oct 2, 1995	Sep 29, 1995	Sep 29, 1995	Sep 29, 1995	Sep 28, 1995

ACCURACY ASSESSMENT

LCS Spike Conc. Added:	50	50	25	1,000	1,000	1,000	25
LCS Spike Result:	52	65	26	920	1,010	950	28.3
LCS Spike % Recovery:	104	129	96	92	101	95	113
Upper Control Limit:	166	132	136	108	104	106	122
Lower Control Limit:	31	84	66	62	69	76	88
Matrix Spike Sample #:	B509611-03	B509435-01	B509465-01	B509465-01	B509465-01	B509465-01	B509435-01
Matrix Spike % Recovery:	99	118/119	114	87	96	90	111/114

PRECISION ASSESSMENT

Sample #:	B509611-03	B509435-01	B509465-01	B509465-01	B509465-01	B509465-01	B509435-01
Original:	N.D.	9.7	N.D.	N.D.	N.D.	N.D.	N.D.
Duplicate:	N.D.	6.7	N.D.	N.D.	N.D.	N.D.	N.D.
Relative % Difference:	RPD values are not reported at sample concentration levels <10 X the Reporting Limit.						

NORTH CREEK ANALYTICAL Inc.

Lab Control Sample	Conc. of L.C.S.	x 100
% Recovery:	L.C.S. Spike Conc. Added	
Relative % Difference:	Original Result - Duplicate Result	x 100
	(Original Result + Duplicate Result) / 2	

Laura Dutton
Project Manager

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Timothy Huntting

Client Project ID: Vanguard Properties
Sample Matrix : Water
Units: µg/L (ppb)

Analyst: K. Gendron
S. Davis

Digested: Sep 27, 1995
Reported: Oct 10, 1995

METALS QUALITY CONTROL DATA REPORT

ANALYTE	Hg	Ni	Se	Ag	Tl	Zn
---------	----	----	----	----	----	----

EPA Method:	7470	6010	7740	7760	7841	6010
Date Analyzed:	Sep 27, 1995	Sep 29, 1995	Oct 2, 1995	Sep 27, 1995	Oct 5, 1995	Sep 29, 1995

ACCURACY ASSESSMENT

LCS Spike Conc. Added:	5.0	1,000	25	250	30	1,000
LCS Spike Result:	4.8	970	26	240	24	960
LCS Spike % Recovery:	96	97	96	96	80	96
Upper Control Limit:	127	105	136	122	140	105
Lower Control Limit:	81	61	66	64	42	64
Matrix Spike Sample #:	B509465-01	B509465-01	B509465-01	B509465-0	B509465-0	B509465-01
Matrix Spike % Recovery:	91	91	114	92	100	93

PRECISION ASSESSMENT

Sample #:	B509465-01	B509465-01	B509465-01	B509465-0	B509465-0	B509465-01
Original:	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Duplicate:	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Relative % Difference: RPD values are not reported at sample concentration levels <10 X the Reporting Limit.

NORTH CREEK ANALYTICAL In

Laura Dutton

Laura Dutton
Project Manager

Lab Control Sample	Conc. of L.C.S.	x 100
% Recovery:	L.C.S. Spike Conc. Added	
Relative % Difference:	Original Result - Duplicate Result	x 100
	(Original Result + Duplicate Result) / 2	

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Timothy Huntting

Client Project ID: Vanguard Properties
Sample Matrix : Water
Units: µg/L (ppb)

Analyst: K. Gendron
S. Davis

Digested: Sep 27, 1995
Reported: Oct 10, 1995

METALS QUALITY CONTROL DATA REPORT

ANALYTE

Sb

As

EPA Method: 7041 7060
Date Analyzed: Oct 4, 1995 Sep 28, 1995

ACCURACY ASSESSMENT

LCS Spike
Conc. Added: 50 50

LCS Spike
Result: 52 65

LCS Spike
% Recovery: 104 129

Upper Control
Limit: 166 132

Lower Control
Limit: 31 84

Matrix Spike
Sample #: B509611-03 B509435-01

Matrix Spike
% Recovery: 99 102

PRECISION ASSESSMENT

Sample #: B509611-03 B509435-01

Original: N.D. N.D.

Duplicate: N.D. N.D.

Relative %
Difference: RPD values are not reported at sample concentration levels <10 X the Reporting Limit.

NORTH CREEK ANALYTICAL In

Lab Control Sample	Conc. of L.C.S.	x 100
% Recovery:	L.C.S. Spike Conc. Added	
Relative % Difference:	Original Result - Duplicate Result	x 100
	(Original Result + Duplicate Result) / 2	

Laura Dutton
Project Manager

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Timothy Huntting

Client Project ID: Vanguard Properties
Sample Descript: Water, MW-1
Analysis Method: EPA 8260
Sample Number: B509465-01

Sampled: Sep 21, 1995
Received: Sep 25, 1995
Analyzed: Sep 25, 1995
Reported: Oct 10, 1995

VOLATILE ORGANIC COMPOUNDS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Benzene.....	1.0	N.D.
Bromobenzene.....	1.0	N.D.
Bromochloromethane.....	1.0	N.D.
Bromodichloromethane.....	1.0	N.D.
Bromoform.....	1.0	N.D.
Bromomethane.....	1.0	N.D.
n-Butylbenzene.....	1.0	N.D.
sec-Butylbenzene.....	1.0	N.D.
tert-Butylbenzene.....	1.0	N.D.
Carbon tetrachloride.....	1.0	N.D.
Chlorobenzene.....	1.0	N.D.
Chloroethane.....	1.0	N.D.
Chloroform.....	1.0	N.D.
Chloromethane.....	1.0	N.D.
2-Chlorotoluene.....	1.0	N.D.
4-Chlorotoluene.....	1.0	N.D.
Dibromochloromethane.....	1.0	N.D.
1,2-Dibromo-3-chloropropane.....	1.0	N.D.
1,2-Dibromoethane.....	1.0	N.D.
Dibromomethane.....	1.0	N.D.
1,2-Dichlorobenzene.....	1.0	N.D.
1,3-Dichlorobenzene.....	1.0	N.D.
1,4-Dichlorobenzene.....	1.0	N.D.
1,1-Dichlorodifluoromethane.....	1.0	N.D.
1,1-Dichloroethane.....	1.0	N.D.
1,2-Dichloroethane.....	1.0	N.D.
1,1-Dichloroethene.....	1.0	N.D.
cis-1,2-Dichloroethene.....	1.0	N.D.
trans-1,2-Dichloroethene.....	1.0	N.D.
1,2-Dichloropropane.....	1.0	N.D.
1,3-Dichloropropane.....	1.0	N.D.
2,2-Dichloropropane.....	1.0	N.D.
1,1-Dichloropropene.....	1.0	N.D.
Ethyl Benzene.....	1.0	N.D.
Hexachlorobutadiene.....	1.0	N.D.
Isopropylbenzene.....	1.0	N.D.
p-Isopropyltoluene.....	1.0	N.D.
Methylene chloride.....	5.0	N.D.

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Timothy Hunting

Client Project ID: Vanguard Properties
Sample Descript: Water, MW-1
Analysis Method: EPA 8260
Sample Number: B509465-01

Sampled: Sep 21, 1995
Received: Sep 25, 1995
Analyzed: Sep 25, 1995
Reported: Oct 10, 1995

VOLATILE ORGANIC COMPOUNDS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Naphthalene.....	1.0	N.D.
n-Propylbenzene.....	1.0	N.D.
Styrene.....	1.0	N.D.
1,1,1,2-Tetrachloroethane.....	1.0	N.D.
1,2,2-Tetrachloroethane.....	1.0	N.D.
atrachloroethene.....	1.0	N.D.
Toluene.....	1.0	N.D.
1,2,3-Trichlorobenzene.....	1.0	N.D.
1,2,4-Trichlorobenzene.....	1.0	N.D.
1,1,1-Trichloroethane.....	1.0	N.D.
1,1,2-Trichloroethane.....	1.0	N.D.
Trichloroethene.....	1.0	N.D.
Trichlorofluoromethane.....	1.0	N.D.
1,2,3-Trichloropropane.....	1.0	N.D.
1,2,4-Trimethylbenzene.....	1.0	N.D.
1,3,5-Trimethylbenzene.....	1.0	N.D.
Vinyl chloride.....	1.0	N.D.
o-Xylene.....	1.0	N.D.
m,p-Xylene.....	1.0	N.D.

Surrogate Standards	Percent Recovery:	Control Limits
1,2-Dichloroethane-d4	83	76-114
Toluene-d8	99	88-110
4-Bromofluorobenzene	90	88-115

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.


Laura Dutton
Project Manager

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Timothy Huntling

Client Project ID: Vanguard Properties
Sample Descript: Water, MW-2
Analysis Method: EPA 8260
Sample Number: B509465-02

Sampled: Sep 19, 1995
Received: Sep 25, 1995
Analyzed: Sep 25, 1995
Reported: Oct 10, 1995

VOLATILE ORGANIC COMPOUNDS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Benzene.....	1.0	N.D.
Bromobenzene.....	1.0	N.D.
Bromochloromethane.....	1.0	N.D.
Bromodichloromethane.....	1.0	N.D.
Bromoform.....	1.0	N.D.
Bromomethane.....	1.0	N.D.
n-Butylbenzene.....	1.0	N.D.
sec-Butylbenzene.....	1.0	N.D.
tert-Butylbenzene.....	1.0	N.D.
Carbon tetrachloride.....	1.0	N.D.
Chlorobenzene.....	1.0	N.D.
Chloroethane.....	1.0	N.D.
Chloroform.....	1.0	N.D.
Chloromethane.....	1.0	N.D.
2-Chlorotoluene.....	1.0	N.D.
4-Chlorotoluene.....	1.0	N.D.
Dibromochloromethane.....	1.0	N.D.
1,2-Dibromo-3-chloropropane.....	1.0	N.D.
1,2-Dibromoethane.....	1.0	N.D.
Dibromomethane.....	1.0	N.D.
1,2-Dichlorobenzene.....	1.0	N.D.
1,3-Dichlorobenzene.....	1.0	N.D.
1,4-Dichlorobenzene.....	1.0	N.D.
Dichlorodifluoromethane.....	1.0	N.D.
1,1-Dichloroethane.....	1.0	N.D.
1,2-Dichloroethane.....	1.0	N.D.
1,1-Dichloroethene.....	1.0	N.D.
cis-1,2-Dichloroethene.....	1.0	N.D.
trans-1,2-Dichloroethene.....	1.0	N.D.
1,2-Dichloropropane.....	1.0	N.D.
1,3-Dichloropropane.....	1.0	N.D.
2,2-Dichloropropane.....	1.0	N.D.
1,1-Dichloropropene.....	1.0	N.D.
Ethyl Benzene.....	1.0	N.D.
Hexachlorobutadiene.....	1.0	N.D.
Isopropylbenzene.....	1.0	N.D.
p-Isopropyltoluene.....	1.0	N.D.
Methylene chloride.....	5.0	N.D.

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Timothy Hunting

Client Project ID: Vanguard Properties
Sample Descript: Water, MW-2
Analysis Method: EPA 8260
Sample Number: B509465-02

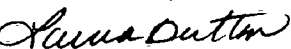
Sampled: Sep 19, 1995
Received: Sep 25, 1995
Analyzed: Sep 25, 1995
Reported: Oct 10, 1995

VOLATILE ORGANIC COMPOUNDS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Naphthalene.....	1.0	N.D.
n-Propylbenzene.....	1.0	N.D.
Styrene.....	1.0	N.D.
1,1,1,2-Tetrachloroethane.....	1.0	N.D.
1,2,2-Tetrachloroethane.....	1.0	N.D.
1,2,3-Tetrachloroethane.....	1.0	N.D.
Toluene.....	1.0	N.D.
1,2,3-Trichlorobenzene.....	1.0	N.D.
1,2,4-Trichlorobenzene.....	1.0	N.D.
1,1,1-Trichloroethane.....	1.0	N.D.
1,1,2-Trichloroethane.....	1.0	N.D.
Trichloroethene.....	1.0	N.D.
Trichlorofluoromethane.....	1.0	N.D.
1,2,3-Trichloropropane.....	1.0	N.D.
1,2,4-Trimethylbenzene.....	1.0	N.D.
1,3,5-Trimethylbenzene.....	1.0	N.D.
Vinyl chloride.....	1.0	N.D.
o-Xylene.....	1.0	N.D.
m,p-Xylene.....	1.0	N.D.

Surrogate Standards	Percent Recovery:	Control Limits
1,2-Dichloroethane-d4	87	76-114
Toluene-d8	99	88-110
4-Bromofluorobenzene	90	86-115

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.


Laura Dutton
Project Manager

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Timothy Huntting

Client Project ID: Vanguard Properties
Sample Descript: Water, MW-3
Analysis Method: EPA 8260
Sample Number: B509465-03

Sampled: Sep 20, 1995
Received: Sep 25, 1995
Analyzed: Sep 25, 1995
Reported: Oct 10, 1995

VOLATILE ORGANIC COMPOUNDS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Benzene.....	1.0	N.D.
Bromobenzene.....	1.0	N.D.
Bromochloromethane.....	1.0	N.D.
Bromodichloromethane.....	1.0	N.D.
Bromoform.....	1.0	N.D.
Bromomethane.....	1.0	N.D.
n-Butylbenzene.....	1.0	N.D.
sec-Butylbenzene.....	1.0	N.D.
tert-Butylbenzene.....	1.0	N.D.
Carbon tetrachloride.....	1.0	N.D.
Chlorobenzene.....	1.0	N.D.
Chloroethane.....	1.0	N.D.
Chloroform.....	1.0	N.D.
Chloromethane.....	1.0	N.D.
2-Chlorotoluene.....	1.0	N.D.
4-Chlorotoluene.....	1.0	N.D.
Dibromochloromethane.....	1.0	N.D.
1,2-Dibromo-3-chloropropane.....	1.0	N.D.
1,2-Dibromoethane.....	1.0	N.D.
Dibromomethane.....	1.0	N.D.
1,2-Dichlorobenzene.....	1.0	N.D.
1,3-Dichlorobenzene.....	1.0	N.D.
1,4-Dichlorobenzene.....	1.0	N.D.
1,1-Dichlorodifluoromethane.....	1.0	N.D.
1,1-Dichloroethane.....	1.0	N.D.
1,2-Dichloroethane.....	1.0	N.D.
1,1-Dichloroethene.....	1.0	N.D.
cis-1,2-Dichloroethene.....	1.0	N.D.
trans-1,2-Dichloroethene.....	1.0	N.D.
1,2-Dichloropropane.....	1.0	N.D.
1,3-Dichloropropane.....	1.0	N.D.
2,2-Dichloropropane.....	1.0	N.D.
1,1-Dichloropropene.....	1.0	N.D.
Ethyl Benzene.....	1.0	N.D.
Hexachlorobutadiene.....	1.0	N.D.
Isopropylbenzene.....	1.0	N.D.
p-Isopropyltoluene.....	1.0	N.D.
Methylene chloride.....	5.0	N.D.

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Timothy Huntting

Client Project ID: Vanguard Properties
Sample Descript: Water, MW-3
Analysis Method: EPA 8260
Sample Number: B509465-03

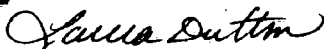
Sampled: Sep 20, 1995
Received: Sep 25, 1995
Analyzed: Sep 25, 1995
Reported: Oct 10, 1995

VOLATILE ORGANIC COMPOUNDS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Naphthalene.....	1.0	N.D.
n-Propylbenzene.....	1.0	N.D.
Styrene.....	1.0	N.D.
1,1,1,2-Tetrachloroethane.....	1.0	N.D.
1,1,2,2-Tetrachloroethane.....	1.0	N.D.
1,2-Dichloroethane.....	1.0	N.D.
Toluene.....	1.0	N.D.
1,2,3-Trichlorobenzene.....	1.0	N.D.
1,2,4-Trichlorobenzene.....	1.0	N.D.
1,1,1-Trichloroethane.....	1.0	N.D.
1,1,2-Trichloroethane.....	1.0	N.D.
Trichloroethene.....	1.0	N.D.
Trichlorofluoromethane.....	1.0	N.D.
1,2,3-Trichloropropane.....	1.0	N.D.
1,2,4-Trimethylbenzene.....	1.0	N.D.
1,3,5-Trimethylbenzene.....	1.0	N.D.
Vinyl chloride.....	1.0	N.D.
o-Xylene.....	1.0	N.D.
m,p-Xylene.....	1.0	N.D.

Surrogate Standards	Percent Recovery:	Control Limits
1,2-Dichloroethane-d4	92	76-114
Toluene-d8	100	88-110
4-Bromofluorobenzene	91	86-115

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.


Laura Dutton
Project Manager

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Timothy Huntting

Client Project ID: Vanguard Properties
Sample Descript: Method Blank
Analysis Method: EPA 8260
Sample Number: BLK092595

Analyzed: Sep 25, 1995
Reported: Oct 10, 1995

VOLATILE ORGANIC COMPOUNDS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Benzene.....	1.0	N.D.
Bromobenzene.....	1.0	N.D.
Bromochloromethane.....	1.0	N.D.
Bromodichloromethane.....	1.0	N.D.
Bromoform.....	1.0	N.D.
Bromomethane.....	1.0	N.D.
n-Butylbenzene.....	1.0	N.D.
sec-Butylbenzene.....	1.0	N.D.
tert-Butylbenzene.....	1.0	N.D.
Carbon tetrachloride.....	1.0	N.D.
Chlorobenzene.....	1.0	N.D.
Chloroethane.....	1.0	N.D.
Chloroform.....	1.0	N.D.
Chloromethane.....	1.0	N.D.
2-Chlorotoluene.....	1.0	N.D.
4-Chlorotoluene.....	1.0	N.D.
Dibromochloromethane.....	1.0	N.D.
1,2-Dibromo-3-chloropropane.....	1.0	N.D.
1,2-Dibromoethane.....	1.0	N.D.
Dibromomethane.....	1.0	N.D.
1,2-Dichlorobenzene.....	1.0	N.D.
1,3-Dichlorobenzene.....	1.0	N.D.
1,4-Dichlorobenzene.....	1.0	N.D.
1,1-Dichlorodifluoromethane.....	1.0	N.D.
1,1-Dichloroethane.....	1.0	N.D.
1,2-Dichloroethane.....	1.0	N.D.
1,1-Dichloroethene.....	1.0	N.D.
cis-1,2-Dichloroethene.....	1.0	N.D.
trans-1,2-Dichloroethene.....	1.0	N.D.
1,2-Dichloropropane.....	1.0	N.D.
1,3-Dichloropropane.....	1.0	N.D.
2,2-Dichloropropane.....	1.0	N.D.
1,1-Dichloropropene.....	1.0	N.D.
Ethyl Benzene.....	1.0	N.D.
Hexachlorobutadiene.....	1.0	N.D.
Isopropylbenzene.....	1.0	N.D.
p-Isopropyltoluene.....	1.0	N.D.
Methylene chloride.....	5.0	N.D.

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Timothy Huntting

Client Project ID: Vanguard Properties
Sample Descript: Method Blank
Analysis Method: EPA 8260
Sample Number: BLK092595


Analyzed: Sep 25, 1995
Reported: Oct 10, 1995

VOLATILE ORGANIC COMPOUNDS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Naphthalene.....	1.0	N.D.
n-Propylbenzene.....	1.0	N.D.
Styrene.....	1.0	N.D.
1,1,1,2-Tetrachloroethane.....	1.0	N.D.
1,2,2-Tetrachloroethane.....	1.0	N.D.
etrachloroethane.....	1.0	N.D.
Toluene.....	1.0	N.D.
1,2,3-Trichlorobenzene.....	1.0	N.D.
1,2,4-Trichlorobenzene.....	1.0	N.D.
1,1,1-Trichloroethane.....	1.0	N.D.
1,1,2-Trichloroethane.....	1.0	N.D.
Trichloroethene.....	1.0	N.D.
Trichlorofluoromethane.....	1.0	N.D.
1,2,3-Trichloropropane.....	1.0	N.D.
1,2,4-Trimethylbenzene.....	1.0	N.D.
1,3,5-Trimethylbenzene.....	1.0	N.D.
Vinyl chloride.....	1.0	N.D.
o-Xylene.....	1.0	N.D.
m,p-Xylene.....	1.0	N.D.

Surrogate Standards	Percent Recovery:	Control Limits
1,2-Dichloroethane-d4	86	76-114
Toluene-d8	98	88-110
4-Bromofluorobenzene	90	86-115

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.


Laura Dutton
Project Manager

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Timothy Huntting

Client Project ID: Vanguard Properties
Sample Matrix: Water
Analysis Method: EPA 8260
Units: µg/L (ppb)
QC Sample #: B509435-09

Analyst: R. Lister

Analyzed: Sep 25, 1995
Reported: Oct 10, 1995

MATRIX SPIKE QUALITY CONTROL DATA REPORT

ANALYTE	1,1-DCE	Benzene	TCE	Toluene	Chloro- benzene
Sample Result:	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10.0	10.0	10.0	10.0	10.0
Spike Result:	7.0	9.1	9.8	9.6	9.8
Spike % Recovery:	70%	91%	98%	96%	98%
Spike Dup. Result:	6.4	8.9	9.6	9.3	9.8
Spike Duplicate % Recovery:	64%	89%	96%	93%	98%
Upper Control Limit %:	140	125	114	117	112
Lower Control Limit %:	30	76	79	89	91
Relative % Difference:	9.4%	2.2%	2.1%	3.2%	0.0%
Maximum RPD:	10	10	10	10	10

NORTH CREEK ANALYTICAL In

% Recovery:	$\frac{\text{Spike Result} - \text{Sample Result}}{\text{Spike Conc. Added}} \times 100$
Relative % Difference:	$\frac{\text{Spike Result} - \text{Spike Dup. Result}}{(\text{Spike Result} + \text{Spike Dup. Result}) / 2} \times 100$


Laura Dutton
Project Manager

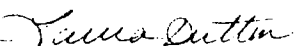
291

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Tim HunttingClient Project ID: Winlock Wood Products
Sample Matrix: Water
Analysis Method: WTPH-418.1
First Sample #: B505144-37Sampled: May 4, 1995
Received: May 5, 1995
Extracted: May 8, 1995
Analyzed: May 8, 1995
Reported: May 23, 1995**TOTAL PETROLEUM HYDROCARBONS-OIL RANGE**

Sample Number	Sample Description	Sample Result mg/L (ppm)
B505144-37	MW-2 5/3/95	N.D.
B505144-44	MW-1	N.D.
B505144-45	MW-3	N.D.
BLK050895	Method Blank	N.D.

Reporting Limit: 1.0

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.Laura Dutton
Project Manager

B505144.LAN <17>

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Tim Huntting

Client Project ID: Winlock Wood Products
Sample Matrix: Water
Analysis Method: WTPH-418.1
Units: mg/L (ppm)

Analyst: T. Rubalcava

Extracted: May 8, 1995
Analyzed: May 8, 1995
Reported: May 23, 1995

HYDROCARBON QUALITY CONTROL DATA REPORT

ACCURACY ASSESSMENT Laboratory Control Sample

Petroleum
Oil

Spike Conc.
Added: 4.2

Spike
Result: 4.0

%
Recovery: 95

Upper Control
Limit %: 134

Lower Control
Limit %: 63

PRECISION ASSESSMENT Sample Duplicate

Petroleum
Oil

Sample
Number: B505140-06

Original
Result: N.D.

Duplicate
Result: N.D.

Relative % Difference: Relative Percent Difference values are not reported at sample concentration levels less than ten times the Detection Limit.

Maximum
RPD: 44

NORTH CREEK ANALYTICAL Inc.

% Recovery: $\frac{\text{Spike Result}}{\text{Spike Concentration Added}} \times 100$

Relative % Difference: $\frac{\text{Original Result} - \text{Duplicate Result}}{(\text{Original Result} + \text{Duplicate Result}) / 2} \times 100$

Laura Dutton
Project Manager

B505144.LAN <18>



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 (206) 481-9200 • FAX 485-2992
East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290
9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (503) 643-9200 • FAX 644-2202

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Tim Huntting

Client Project ID: Winlock Wood Products
Sample Descript: MW-2
Analysis Method: EPA 6010/7000
Sample Number: B505144-37
Sample Matrix: Water

Sampled: May 4, 1995
Received: May 5, 1995
Digested: May 10-12, 1995
Analyzed: May 11-12, 1995
Reported: May 23, 1995

E.P.A. PRIORITY METALS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Antimony.....	100	N.D.
Arsenic.....	200	N.D.
Beryllium.....	5.0	N.D.
Cadmium.....	5.0	N.D.
Chromium.....	10	N.D.
Copper.....	30	N.D.
Lead.....	200	N.D.
Mercury.....	1.0	N.D.
Nickel.....	30	N.D.
Selenium.....	150	N.D.
Silver.....	20	N.D.
Thallium.....	200	N.D.
Zinc.....	20	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Laura Dutton

Laura Dutton
Project Manager

B505144.LAN <19>



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 (206) 481-9200 • FAX 485-2992
East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290
9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (503) 643-9200 • FAX 644-2202

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Tim Hunting

Client Project ID: Winlock Wood Products
Sample Descript: MW-1
Analysis Method: EPA 6010/7000
Sample Number: B505144-44
Sample Matrix: Water

Sampled: May 4, 1995
Received: May 5, 1995
Digested: May 10-12, 1995
Analyzed: May 11-12, 1995
Reported: May 23, 1995

E.P.A. PRIORITY METALS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Antimony.....	100	N.D.
Arsenic.....	200	N.D.
Beryllium.....	5.0	N.D.
Cadmium.....	5.0	N.D.
Chromium.....	10	N.D.
Copper.....	30	N.D.
Lead.....	200	N.D.
Mercury.....	10	N.D.
Nickel.....	30	N.D.
Selenium.....	150	N.D.
Silver.....	20	N.D.
Thallium.....	200	N.D.
Zinc.....	20	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Laura Dutton

Laura Dutton
Project Manager

B505144.LAN <20>

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Tim Huntting

Client Project ID: Winlock Wood Products
Sample Descript: MW-3
Analysis Method: EPA 6010/7000
Sample Number: B505144-45
Sample Matrix: Water

Sampled: May 4, 1995
Received: May 5, 1995
Digested: May 10-12, 1995
Analyzed: May 11-12, 1995
Reported: May 23, 1995

E.P.A. PRIORITY METALS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Antimony.....	100	N.D.
Arsenic.....	200	N.D.
Beryllium.....	5.0	N.D.
Cadmium.....	5.0	N.D.
Chromium.....	10	N.D.
Copper.....	30	N.D.
Lead.....	200	N.D.
Mercury.....	1.0	N.D.
Nickel.....	30	N.D.
Selenium.....	150	N.D.
Silver.....	20	N.D.
Thallium.....	200	N.D.
Zinc.....	20	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Laura Dutton

Laura Dutton
Project Manager



18939 120th Avenue N.E., Suite 101 • Bothell, WA 98011-9508 (206) 481-9200 • FAX 485-2992
East 11115 Montgomery, Suite B • Spokane, WA 99206-4776 (509) 924-9200 • FAX 924-9290
9405 S.W. Nimbus Avenue • Beaverton, OR 97008-7132 (503) 643-9200 • FAX 644-2202

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Tim Huntting

Client Project ID: Winlock Wood Products
Sample Descript: Method Blank
Analysis Method: EPA 6010/7000
Sample Number: BLK051095
Sample Matrix: Water

Digested: May 10-12, 1995
Analyzed: May 11-12, 1995
Reported: May 23, 1995

E.P.A. PRIORITY METALS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Antimony.....	100	N.D.
Arsenic.....	200	N.D.
Beryllium.....	5.0	N.D.
Cadmium.....	5.0	N.D.
Chromium.....	10	N.D.
Copper.....	30	N.D.
Lead.....	200	N.D.
Mercury.....	1.0	N.D.
Nickel.....	30	N.D.
Selenium.....	150	N.D.
Silver.....	20	N.D.
Thallium.....	200	N.D.
Zinc.....	20	N.D.

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Laura Dutton

Laura Dutton
Project Manager

B505144.LAN <22>

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Tim Huntting

Client Project ID: Winlock Wood Products
Sample Matrix : Water
Units: µg/L (ppb)

Analyst: A. Shephard
K. Gendron

Digested: May 10-12, 1995
Reported: May 23, 1995

METALS QUALITY CONTROL DATA REPORT

ANALYTE

	Sb	As	Be	Cd	Cr	Cu	Pb
--	----	----	----	----	----	----	----

EPA Method:	6010	6010	6010	6010	6010	6010	6010
Date Analyzed:	May 11, 1995	May 11, 1995	May 11, 1995	May 11, 1995	May 11, 1995	May 11, 1995	May 11, 1995

ACCURACY ASSESSMENT

LCS Spike Conc. Added:	1,000	1,000	1,000	1,000	1,000	1,000	1,000
LCS Spike Result:	830	910	870	820	920	860	860
LCS Spike % Recovery:	83	91	87	82	92	86	86
Upper Control Limit:	106	120	105	108	104	106	110
Lower Control Limit:	70	62	62	62	69	76	61
Matrix Spike Sample #:	B505011-01	B505011-01	B505011-01	B505011-01	B505011-01	B505011-01	B505011-01
Matrix Spike % Recovery:	85	87	86	82	87	87	87

PRECISION ASSESSMENT

Sample #:	B505011-01	B505011-01	B505011-01	B505011-01	B505011-01	B505011-01	B505011-01
Original:	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Duplicate:	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Relative % Difference:	Relative Percent Difference values are not reported at sample concentration levels less than 10 times the Reporting Limit.						

NORTH CREEK ANALYTICAL Inc.

Lab Control Sample	Conc. of L.C.S.	x 100
% Recovery:	L.C.S. Spike Conc. Added	
Relative % Difference:	Original Result - Duplicate Result	x 100
	(Original Result + Duplicate Result) / 2	

Laura Dutton
Laura Dutton
Project Manager

B505144.LAN <23>

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Tim Huntting

Client Project ID: Winlock Wood Products
Sample Matrix : Water
Units: µg/L (ppb)

Analyst: A. Shephard
K. Gendron

Digested: May 10-12, 1995
Reported: May 23, 1995

METALS QUALITY CONTROL DATA REPORT

ANALYTE	Hg	Ni	Se	Ag	Tl	Zn
---------	----	----	----	----	----	----

EPA Method:	7470 Modified	6010	6010	7760	6010	6010
Date Analyzed:	May 12, 1995	May 11, 1995	May 11, 1995	May 11, 1995	May 12, 1995	May 11, 1995

ACCURACY ASSESSMENT

LCS Spike Conc. Added:	5.00	1,000	1,000	250	1,000	1,000
LCS Spike Result:	5.06	860	850	230	840	850
LCS Spike % Recovery:	101	86	85	92	84	85
Upper Control Limit:	127	105	122	122	106	105
Lower Control Limit:	81	83	82	94	78	84
Matrix Spike Sample #:	B505011-01	B505011-01	B505011-01	B505011-01	B505011-01	B505011-01
Matrix Spike % Recovery:	100	83	82	94	78	84

PRECISION ASSESSMENT

Sample #:	B505011-01	B505011-01	B505011-01	B505011-01	B505011-01	B505011-01
Original:	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Duplicate:	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Relative % Difference:	Relative Percent Difference values are not reported at sample concentration levels <10 X the Reporting Limit.					

NORTH CREEK ANALYTICAL Inc.

Lab Control Sample	Conc. of L.C.S.	x 100
% Recovery:	L.C.S. Spike Conc. Added	
Relative % Difference:	Original Result - Duplicate Result	x 100
	(Original Result + Duplicate Result) / 2	

Laura Dutton
Laura Dutton
Project Manager

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Tim Huntting

Client Project ID: Winlock Wood Products
Sample Descript: Water, MW-2
Analysis Method: EPA 8260
Sample Number: B505144-37

Sampled: May 3, 1995
Received: May 5, 1995
Analyzed: May 10, 1995
Reported: May 23, 1995

VOLATILE ORGANIC COMPOUNDS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Benzene.....	1.0	N.D.
Bromobenzene.....	1.0	N.D.
Bromochloromethane.....	1.0	N.D.
Bromodichloromethane.....	1.0	N.D.
Bromoform.....	1.0	N.D.
Bromomethane.....	1.0	N.D.
n-Butylbenzene.....	1.0	N.D.
sec-Butylbenzene.....	1.0	N.D.
tert-Butylbenzene.....	1.0	N.D.
Carbon tetrachloride.....	1.0	N.D.
Chlorobenzene.....	1.0	N.D.
Chloroethane.....	1.0	N.D.
Chloroform.....	1.0	N.D.
Chloromethane.....	1.0	N.D.
2-Chlorotoluene.....	1.0	N.D.
4-Chlorotoluene.....	1.0	N.D.
Dibromochloromethane.....	1.0	N.D.
1,2-Dibromo-3-chloropropane.....	1.0	N.D.
1,2-Dibromoethane.....	1.0	N.D.
Dibromomethane.....	1.0	N.D.
1,2-Dichlorobenzene.....	1.0	N.D.
1,3-Dichlorobenzene.....	1.0	N.D.
1,4-Dichlorobenzene.....	1.0	N.D.
1,1-Dichlorodifluoromethane.....	1.0	N.D.
1,1-Dichloroethane.....	1.0	N.D.
1,2-Dichloroethane.....	1.0	N.D.
1,1-Dichloroethene.....	1.0	N.D.
cis-1,2-Dichloroethene.....	1.0	N.D.
trans-1,2-Dichloroethene.....	1.0	N.D.
1,2-Dichloropropane.....	1.0	N.D.
1,3-Dichloropropane.....	1.0	N.D.
2,2-Dichloropropane.....	1.0	N.D.
1,1-Dichloropropene.....	1.0	N.D.
Ethyl Benzene.....	1.0	N.D.
Hexachlorobutadiene.....	1.0	N.D.
Isopropylbenzene.....	1.0	N.D.
p-Isopropyltoluene.....	1.0	N.D.
Methylene chloride.....	5.0	N.D.

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Tim Huntting

Client Project ID: Winlock Wood Products
Sample Descript: Water, MW-2
Analysis Method: EPA 8260
Sample Number: B505144-37

Sampled: May 3, 1995
Received: May 5, 1995
Analyzed: May 10, 1995
Reported: May 23, 1995

VOLATILE ORGANIC COMPOUNDS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Naphthalene.....	1.0	N.D.
n-Propylbenzene.....	1.0	N.D.
Styrene.....	1.0	N.D.
1,1,1,2-Tetrachloroethane.....	1.0	N.D.
1,1,2,2-Tetrachloroethane.....	1.0	N.D.
Tetrachloroethene.....	1.0	N.D.
Toluene.....	1.0	N.D.
1,2,3-Trichlorobenzene.....	1.0	N.D.
1,2,4-Trichlorobenzene.....	1.0	N.D.
1,1,1-Trichloroethane.....	1.0	N.D.
1,1,2-Trichloroethane.....	1.0	N.D.
Trichloroethene.....	1.0	N.D.
Trichlorofluoromethane.....	1.0	N.D.
1,2,3-Trichloropropane.....	1.0	N.D.
1,2,4-Trimethylbenzene.....	1.0	N.D.
1,3,5-Trimethylbenzene.....	1.0	N.D.
Vinyl chloride.....	1.0	N.D.
o-Xylene.....	1.0	N.D.
m,p-Xylene.....	1.0	N.D.

Surrogate Standards Percent Recovery:	Control Limits
1,2-Dichloroethane-d4	137, S-4 76-114
Toluene-d8	102 88-110
4-Bromofluorobenzene	112 86-115

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Please Note:
S-4 = The Surrogate Recovery for 1,2-Dichloroethane-d4 is outside of method established control limits.



Laura Dutton
Project Manager

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Tim Hunting

Client Project ID: Winlock Wood Products
Sample Descript: Water, MW-1
Analysis Method: EPA 8260
Sample Number: B505144-44

Sampled: May 4, 1995
Received: May 5, 1995
Analyzed: May 10, 1995
Reported: May 23, 1995

VOLATILE ORGANIC COMPOUNDS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Benzene.....	1.0	N.D.
Bromobenzene.....	1.0	N.D.
Bromochloromethane.....	1.0	N.D.
Bromodichloromethane.....	1.0	N.D.
Bromoform.....	1.0	N.D.
Bromomethane.....	1.0	N.D.
n-Butylbenzene.....	1.0	N.D.
sec-Butylbenzene.....	1.0	N.D.
tert-Butylbenzene.....	1.0	N.D.
Carbon tetrachloride.....	1.0	N.D.
Chlorobenzene.....	1.0	N.D.
Chloroethane.....	1.0	N.D.
Chloroform.....	1.0	N.D.
Chloromethane.....	1.0	N.D.
2-Chlorotoluene.....	1.0	N.D.
4-Chlorotoluene.....	1.0	N.D.
Dibromochloromethane.....	1.0	N.D.
1,2-Dibromo-3-chloropropane.....	1.0	N.D.
1,2-Dibromoethane.....	1.0	N.D.
Dibromomethane.....	1.0	N.D.
1,2-Dichlorobenzene.....	1.0	N.D.
1,3-Dichlorobenzene.....	1.0	N.D.
1,4-Dichlorobenzene.....	1.0	N.D.
1,1-Dichloroethane.....	1.0	N.D.
1,2-Dichloroethane.....	1.0	N.D.
1,1-Dichloroethene.....	1.0	N.D.
cis-1,2-Dichloroethene.....	1.0	N.D.
trans-1,2-Dichloroethene.....	1.0	N.D.
1,2-Dichloropropane.....	1.0	N.D.
1,3-Dichloropropane.....	1.0	N.D.
2,2-Dichloropropane.....	1.0	N.D.
1,1-Dichloropropene.....	1.0	N.D.
Ethyl Benzene.....	1.0	N.D.
Hexachlorobutadiene.....	1.0	N.D.
Isopropylbenzene.....	1.0	N.D.
p-Isopropyltoluene.....	1.0	N.D.
Methylene chloride.....	5.0	N.D.

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Tim Huntting

Client Project ID: Winlock Wood Products
Sample Descript: Water, MW-1
Analysis Method: EPA 8260
Sample Number: B505144-44

Sampled: May 4, 1995
Received: May 5, 1995
Analyzed: May 10, 1995
Reported: May 23, 1995

VOLATILE ORGANIC COMPOUNDS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Naphthalene.....	1.0	N.D.
n-Propylbenzene.....	1.0	N.D.
Styrene.....	1.0	N.D.
1,1,1,2-Tetrachloroethane.....	1.0	N.D.
1,1,2,2-Tetrachloroethane.....	1.0	N.D.
Tetrachloroethene.....	1.0	N.D.
Toluene.....	1.0	N.D.
1,2,3-Trichlorobenzene.....	1.0	N.D.
1,2,4-Trichlorobenzene.....	1.0	N.D.
1,1,1-Trichloroethane.....	1.0	N.D.
1,1,2-Trichloroethane.....	1.0	N.D.
Trichloroethene.....	1.0	N.D.
Trichlorofluoromethane.....	1.0	N.D.
1,2,3-Trichloropropane.....	1.0	N.D.
1,2,4-Trimethylbenzene.....	1.0	N.D.
1,3,5-Trimethylbenzene.....	1.0	N.D.
Vinyl chloride.....	1.0	N.D.
o-Xylene.....	1.0	N.D.
m,p-Xylene.....	1.0	N.D.

Surrogate Standards Percent Recovery:	Control Limits
1,2-Dichloroethane-d4	132, S-4 76-114
Toluene-d8	100 88-110
4-Bromofluorobenzene	112 86-115

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Please Note:

S-4 = The Surrogate Recovery for 1,2-Dichloroethane-d4 is outside of method established control limits.

Laura Dutton

Laura Dutton
Project Manager

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Tim Huntting

Client Project ID: Winlock Wood Products
Sample Descript: Water, MW-3
Analysis Method: EPA 8260
Sample Number: B505144-45

Sampled: May 4, 1995
Received: May 5, 1995
Analyzed: May 10, 1995
Reported: May 23, 1995

VOLATILE ORGANIC COMPOUNDS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Benzene.....	1.0	N.D.
Bromobenzene.....	1.0	N.D.
Bromochloromethane.....	1.0	N.D.
Bromodichloromethane.....	1.0	N.D.
Bromoform.....	1.0	N.D.
Bromomethane.....	1.0	N.D.
n-Butylbenzene.....	1.0	N.D.
sec-Butylbenzene.....	1.0	N.D.
tert-Butylbenzene.....	1.0	N.D.
Carbon tetrachloride.....	1.0	N.D.
Chlorobenzene.....	1.0	N.D.
Chloroethane.....	1.0	N.D.
Chloroform.....	1.0	N.D.
Chloromethane.....	1.0	N.D.
2-Chlorotoluene.....	1.0	N.D.
4-Chlorotoluene.....	1.0	N.D.
Dibromochloromethane.....	1.0	N.D.
1,2-Dibromo-3-chloropropane.....	1.0	N.D.
1,2-Dibromoethane.....	1.0	N.D.
Dibromomethane.....	1.0	N.D.
1,2-Dichlorobenzene.....	1.0	N.D.
1,3-Dichlorobenzene.....	1.0	N.D.
1,4-Dichlorobenzene.....	1.0	N.D.
Dichlorodifluoromethane.....	1.0	N.D.
1,1-Dichloroethane.....	1.0	N.D.
1,2-Dichloroethane.....	1.0	N.D.
1,1-Dichloroethene.....	1.0	N.D.
cis-1,2-Dichloroethene.....	1.0	N.D.
trans-1,2-Dichloroethene.....	1.0	N.D.
1,2-Dichloropropane.....	1.0	N.D.
1,3-Dichloropropane.....	1.0	N.D.
2,2-Dichloropropane.....	1.0	N.D.
1,1-Dichloropropene.....	1.0	N.D.
Ethyl Benzene.....	1.0	N.D.
Hexachlorobutadiene.....	1.0	N.D.
Isopropylbenzene.....	1.0	N.D.
p-Isopropyltoluene.....	1.0	N.D.
Methylene chloride.....	5.0	N.D.

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Tim Huntting

Client Project ID: Winlock Wood Products
Sample Descript: Water, MW-3
Analysis Method: EPA 8260
Sample Number: B505144-45

Sampled: May 4, 1995
Received: May 5, 1995
Analyzed: May 10, 1995
Reported: May 23, 1995

VOLATILE ORGANIC COMPOUNDS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Naphthalene.....	1.0	N.D.
n-Propylbenzene.....	1.0	N.D.
Styrene.....	1.0	N.D.
1,1,1,2-Tetrachloroethane.....	1.0	N.D.
1,1,2,2-Tetrachloroethane.....	1.0	N.D.
1,2,2,2-Tetrachloroethane.....	1.0	N.D.
Toluene.....	1.0	N.D.
1,2,3-Trichlorobenzene.....	1.0	N.D.
1,2,4-Trichlorobenzene.....	1.0	N.D.
1,1,1-Trichloroethane.....	1.0	N.D.
1,1,2-Trichloroethane.....	1.0	N.D.
Trichloroethene.....	1.0	N.D.
Trichlorofluoromethane.....	1.0	N.D.
1,2,3-Trichloropropane.....	1.0	N.D.
1,2,4-Trimethylbenzene.....	1.0	N.D.
1,3,5-Trimethylbenzene.....	1.0	N.D.
Vinyl chloride.....	1.0	N.D.
o-Xylene.....	1.0	N.D.
m,p-Xylene.....	1.0	N.D.

Surrogate Standards Percent Recovery:		Control Limits
1,2-Dichloroethane-d4	85	76-114
Toluene-d8	100	88-110
4-Bromofluorobenzene	112	86-115

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.
Laura Dutton

Laura Dutton
Project Manager

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Tim Huntting

Client Project ID: Winlock Wood Products
Sample Descript: Method Blank
Analysis Method: EPA 8260
Sample Number: BLK051095

Analyzed: May 10, 1995
Reported: May 23, 1995

VOLATILE ORGANIC COMPOUNDS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Benzene.....	1.0	N.D.
Bromobenzene.....	1.0	N.D.
Bromochloromethane.....	1.0	N.D.
Bromodichloromethane.....	1.0	N.D.
Bromoform.....	1.0	N.D.
Bromomethane.....	1.0	N.D.
n-Butylbenzene.....	1.0	N.D.
sec-Butylbenzene.....	1.0	N.D.
tert-Butylbenzene.....	1.0	N.D.
Carbon tetrachloride.....	1.0	N.D.
Chlorobenzene.....	1.0	N.D.
Chloroethane.....	1.0	N.D.
Chloroform.....	1.0	N.D.
Chloromethane.....	1.0	N.D.
2-Chlorotoluene.....	1.0	N.D.
4-Chlorotoluene.....	1.0	N.D.
Dibromochloromethane.....	1.0	N.D.
1,2-Dibromo-3-chloropropane.....	1.0	N.D.
1,2-Dibromoethane.....	1.0	N.D.
Dibromomethane.....	1.0	N.D.
1,2-Dichlorobenzene.....	1.0	N.D.
1,3-Dichlorobenzene.....	1.0	N.D.
1,4-Dichlorobenzene.....	1.0	N.D.
1,1-Dichlorodifluoromethane.....	1.0	N.D.
1,1-Dichloroethane.....	1.0	N.D.
1,2-Dichloroethane.....	1.0	N.D.
1,1-Dichloroethene.....	1.0	N.D.
cis-1,2-Dichloroethene.....	1.0	N.D.
trans-1,2-Dichloroethene.....	1.0	N.D.
1,2-Dichloropropane.....	1.0	N.D.
1,3-Dichloropropane.....	1.0	N.D.
2,2-Dichloropropane.....	1.0	N.D.
1,1-Dichloropropene.....	1.0	N.D.
Ethyl Benzene.....	1.0	N.D.
Hexachlorobutadiene.....	1.0	N.D.
Isopropylbenzene.....	1.0	N.D.
p-Isopropyltoluene.....	1.0	N.D.
Methylene chloride.....	5.0	N.D.

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Tim Huntting

Client Project ID: Winlock Wood Products
Sample Descript: Method Blank
Analysis Method: EPA 8260
Sample Number: BLK051095

Analyzed: May 10, 1995
Reported: May 23, 1995

VOLATILE ORGANIC COMPOUNDS

Analyte	Reporting Limit µg/L (ppb)	Sample Results µg/L (ppb)
Naphthalene.....	1.0	N.D.
n-Propylbenzene.....	1.0	N.D.
Styrene.....	1.0	N.D.
1,1,1,2-Tetrachloroethane.....	1.0	N.D.
1,1,2,2-Tetrachloroethane.....	1.0	N.D.
Tetrachloroethene.....	1.0	N.D.
Toluene.....	1.0	N.D.
1,2,3-Trichlorobenzene.....	1.0	N.D.
1,2,4-Trichlorobenzene.....	1.0	N.D.
1,1,1-Trichloroethane.....	1.0	N.D.
1,1,2-Trichloroethane.....	1.0	N.D.
Trichloroethene.....	1.0	N.D.
Trichlorofluoromethane.....	1.0	N.D.
1,2,3-Trichloropropane.....	1.0	N.D.
1,2,4-Trimethylbenzene.....	1.0	N.D.
1,3,5-Trimethylbenzene.....	1.0	N.D.
Vinyl chloride.....	1.0	N.D.
o-Xylene.....	1.0	N.D.
m,p-Xylene.....	1.0	N.D.

Surrogate Standards Percent Recovery:		Control Limits
1,2-Dichloroethane-d4	120, S-4	76-114
Toluene-d8	99	88-110
4-Bromofluorobenzene	111	86-115

Analytes reported as N.D. were not detected above the stated Reporting Limit.

NORTH CREEK ANALYTICAL Inc.

Please Note:

S-4 = The Surrogate Recovery for 1,2-Dichloroethane-d4 is outside of method established control limits.

Laura Dutton

Laura Dutton
Project Manager

Landau Associates
23107 100th Avenue W.
Edmonds, WA 98020
Attention: Tim Huntting

Client Project ID: Winlock Wood Products
Sample Matrix: Water
Analysis Method: EPA 8260
Units: µg/L (ppb)
QC Sample #: B505173-01

Analyst: R. Lister

Analyzed: May 10, 1995
Reported: May 23, 1995

MATRIX SPIKE QUALITY CONTROL DATA REPORT

ANALYTE	1,1-DCE	Benzene	TCE	Toluene	Chloro- benzene
Sample Result:	N.D.	N.D.	N.D.	N.D.	N.D.
Spike Conc. Added:	10.0	10.0	10.0	10.0	10.0
Spike Result:	11.6	9.8	9.2	9.2	9.6
Spike % Recovery:	116%	98%	92%	92%	96%
Spike Dup. Result:	11.7	9.9	9.6	9.6	9.8
Spike Duplicate % Recovery:	117%	99%	96%	96%	98%
Upper Control Limit %:	140	125	114	117	112
Lower Control Limit %:	30	76	79	89	91
Relative % Difference:	<1.0%	1.0%	4.3%	4.3%	2.1%
Maximum RPD:	10	10	10	10	10

NORTH CREEK ANALYTICAL Inc.

% Recovery:	$\frac{\text{Spike Result} - \text{Sample Result}}{\text{Spike Conc. Added}} \times 100$
Relative % Difference:	$\frac{\text{Spike Result} - \text{Spike Dup. Result}}{(\text{Spike Result} + \text{Spike Dup. Result}) / 2} \times 100$

Laura Dutton
Laura Dutton
Project Manager

Chain-of-Custody Record

No 3070

Date 5/2/95
Page 1 of 3

Project WINDLOCK WOOD PRODUCTS Job No. 281001

Client WINDLOCK SAME

Project Location WINDLOCK, WA

Sampler's Name TM HUNTING

Testing Parameters

Turnaround Time

☐ Standard

☐ Accelerated

TURNAROUND - 10 DAYS

5505144 -

Observations/Comments

Sample Number	Date	Time	Matrix	No. of Containers	TOTAL LEAD	TPH	Volatile Organic	TCLP Organic	P.P. Metals (13)	Heavy Metals (13)	Residue	Other	Observations/Comments
TP-1A-1	5/2/95	1150	SOIL	2	X					X			Report Results to 01
TP-2A-1		1220		2	X					X			Tim Hunting 02
TP-3A-1		1245		2	X					X			03
TP-4A-1		1310		2	X					X			04
TP-5A-1		1405		2	X					X			All groundwater metal 05
TP-6A-1		1435		2	X					X			samples were field filtered 06
TP-7A-1		1500		2	X					X			07
TP-8A-1		1530		2	X	X	X			X			08
TP-8A-2		1600		1	X	X	X			X			09
TP-8A-3		1615		2	X					X			10
TP-9A-1		1635		2	X					X			11
TP-9A-2		1640		1	X					X			12
TP-10A-1		1700		2	X					X			13
TP-12A-1		1730		2	X	X	X			X			14
TP-13A-1		1800		2	X					X			15
OIA-MW2-0.2		1147		1						X			16

Special Shipment/Handling
or Storage Requirements

Method of
Shipment

Relinquished by

Christine Kimmel
Signature

Christine Kimmel
Printed Name

Landau Associates
Company

Date 5/5/95 Time 1215

Received by

Jeff Carrier
Signature

JEFF CARRIER
Printed Name

NCA
Company

Date 5/5/95 Time 1215

Relinquished by

Signature

Printed Name

Company

Date _____ Time _____

Received by

Signature

Printed Name

Company

Date _____ Time _____

391

Project <u>WINDLOCK WOOD PRODUCTS</u> Job No. <u>281001</u>					Testing Parameters										Turnaround Time <input type="checkbox"/> Standard <input type="checkbox"/> Accelerated <u>TURNAROUND = 10 DAYS</u>	
Client <u>SAME</u>					TOTAL LEAD 600/1000 TPH 418.1 Weight Oils 8240 TCLP 1311 P.P.M. to 15 (13) 650/100 RED REMAINDER FOR 3000											
Project Location <u>WINDLOCK WA</u>																
Sampler's Name <u>Chris Kimmel/Ken Chaput</u>																
Sample Number	Date	Time	Matrix	No. of Containers											Observations/Comments	
SWA-3-0.25	5/3/95	1715	SOIL	2												B50514A - 33
SWA-3-0.5		1725		2												34
SWA-3-1.0		1735		2	X	X	X									35
SWA-3-1.8		1755		2	X	X	X									36
MW-2		1830	WATER	5			X	X		X						37
SWA-3A-3.7	5/4/95	0825	SOIL	2	X	X	X									38
SWP-1W		0915	WASTE	2	X	X	X									39
SWP-1-0.25		0950		2	X	X	X									40
SWP-1-0.5		1000		2	X	X	X									41
SWP-4-0.5		1010		2	X	X	X									42
SWP-1-1.0		1015		2								X				43
MW-1		1120	WATER	5		X	X		X							44
MW-3		1155	WATER	5		X	X		X							45
Special Shipment/Handling or Storage Requirements															Method of Shipment	
Relinquished by <u>Christine Kimmel</u> Signature <u>Christine Kimmel</u> Printed Name <u>Candau Assoc</u> Company Date <u>5/5/95</u> Time <u>1215</u>					Received by <u>Jeff Carrier</u> Signature <u>JEFF-CARRIER</u> Printed Name <u>NCA</u> Company Date <u>5/5/95</u> Time <u>1215</u>					Relinquished by _____ Signature _____ Printed Name _____ Company Date _____ Time _____					Received by _____ Signature _____ Printed Name _____ Company Date _____ Time _____	